



Weston Solutions, Inc.
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US EPA RECORDS CENTER REGION 5



August 19, 2013

Mr. Nanjunda Gowda
Work Assignment Manager
U.S. Environmental Protection Agency
77 West Jackson Boulevard
Chicago, IL 60604

Subject: Letter Report
Ellsworth Industrial Park – Operable Unit 1
Downers Grove, DuPage County, Illinois
Technical Direction Document No.: S05-0008-0710-019
Document Control No.: 320-2A-BIRD
Contract No.: EP-S5-06-04

Dear Mr. Gowda:

The Weston Solutions, Inc. (WESTON®), Superfund Technical Assessment and Response Team (START) prepared this letter in accordance with the tasks outlined in Technical Direction Document (TDD) No. S05-0008-0710-019. The letter serves to present additional information related to the Soil Screening Level (SSL) calculations for the migration to groundwater pathway for Operable Unit 1 (OU1) of the Ellsworth Industrial Park (EIP) (the Site). The Draft Remedial Investigation (RI) Report, Revision 0 (WESTON, 2009) previously presented the SSL calculations. Relevant information related to the SSL calculations is included as Attachments to this letter. **Attachment A** provides the alluvial aquifer potentiometric surface map. **Attachment B** provides revised Tables I-1 and I-2. **Attachment C** provides relevant boring logs. **Attachment D** provides a geologic cross-section location map and cross sections E-E', H-H', and K-K'. The information provided in the attachments was previously included in the Draft Remedial Investigation (RI) Report, Revision 0 (WESTON, 2009).

The hydraulic gradient was calculated using groundwater elevations obtained in February 2007 from monitoring wells screened within the alluvial aquifer. Based on the potentiometric surface presented on Figure 3-10 (**Attachment A**), it is apparent that flow through the alluvial aquifer is complex and varies widely across the Site. The flow gradient along the western portion of the Site is less than across the eastern portion. In an effort to obtain an average flow rate for the entire Site, the hydraulic gradient was calculated in the western, central, and eastern portions of the Site. Additionally, it is noted that the magnitude of the flow gradients presented is fairly consistent. A range of hydraulic gradients from 0.018 to 0.049 feet per foot (ft/ft) is within the expected range of flow for a complex aquifer system with heterogeneous conditions.

Table I-1 (**Attachment B**) presents the site-specific SSLs for the migration to groundwater pathway for Site contaminants of concern that were calculated using the site-specific hydraulic conductivity. Table I-2 (**Attachment B**) presents the calculation of the site-specific hydraulic conductivity using the geometric mean. The wells used to calculate the Site hydraulic



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Mr. Nanjunda Gowda
EPA, Region 5

-2- Ellsworth Industrial Park – Operable Unit 1
August 19, 2013

conductivity for the alluvial aquifer were selected based on the lithology encountered in the well borings. Relevant boring logs are included in **Attachment C** and geologic cross-sections are included in **Attachment D**. Wells screened entirely, or predominantly in coarse-grained materials (sands and gravels) were included in the calculation whereas wells screened in predominantly fine-grained materials (silts and clays) with minor sand/gravel lenses were not included in the calculation. The hydraulic conductivity of the excluded wells is not believed to be representative of the alluvial aquifer as the hydraulic conductivity is limited by the predominance of the fine-grained materials.

If you have any questions or require additional information, please feel free to contact me at (773) 315-1959.

Sincerely,
WESTON SOLUTIONS, INC.

A handwritten signature in black ink, appearing to read "Joseph Ruiz", written over a faint, stylized graphic that resembles a large letter "Z" or a similar abstract shape.

Joseph Ruiz
WESTON START Project Manager

Attachments:

- A – Potentiometric Surface Map
- B – Tables I-1 and I-2
- C – Boring Logs
- D – Geologic Cross Sections

cc: WESTON START DCN File



Mr. Nanjunda Gowda
EPA, Region 5

-2- Ellsworth Industrial Park – Operable Unit 1
August 19, 2013

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A handwritten signature in black ink, appearing to read "JR" or "Joseph Ruiz", written over a series of horizontal lines.

Joseph Ruiz
WESTON START Project Manager

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ATTACHMENT A
POTENTIOMETRIC SURFACE MAP

ATTACHMENT B
TABLES I-1 AND I-2

Table I-1
Calculation of Soil Screening Levels for the Migration to Groundwater Pathway
Ellsworth Industrial Park Site
Downers Grove, Illinois

Equation 10 - Soil Screening Level Partitioning Equation for Migration to Ground Water (Soil Screening Guidance: User's Guide, July 1996)

$$\text{SSL (for migration to groundwater)} = C_w * [K_d + (\theta_w + \theta_a * H') / \rho_b]$$

Chemical	Groundwater Objectives - MCLs (mg/L)	DAF (unitless)	C _w (mg/L)	K _{oc} (L/kg)	Adjusted foc (g/g)	K _d (L/kg)	θ _w (L/L)	θ _a (L/L)	ρ _b (kg/L)	H' (unitless)	Migration to Groundwater SSL (mg/kg)
Primary Chlorinated Solvents											
1,1,1-Trichloroethane	0.2	114	2.27E+01	110	0.011	1.19	0.3	0.13	1.5	0.705	3.3E+01
Tetrachloroethene	0.005	114	5.68E-01	155	0.011	1.68	0.3	0.13	1.5	0.754	1.1E+00
Trichloroethene	0.005	114	5.68E-01	166	0.011	1.80	0.3	0.13	1.5	0.422	1.2E+00
Secondary Chlorinated Solvents											
1,1-Dichloroethane	4	114	4.54E+02	31.6	0.011	0.34	0.3	0.13	1.5	0.23	2.6E+02
1,2-Dichloroethane	0.005	114	5.68E-01	17.4	0.011	0.19	0.3	0.13	1.5	0.0401	2.2E-01
1,1-Dichloroethene	0.007	114	7.95E-01	58.9	0.011	0.64	0.3	0.13	1.5	1.07	7.4E-01
cis-1,2-Dichloroethene	0.07	114	7.95E+00	35.5	0.011	0.39	0.3	0.13	1.5	0.167	4.8E+00
trans-1,2-Dichloroethene	0.1	114	1.14E+01	52.5	0.011	0.57	0.3	0.13	1.5	0.385	9.1E+00
Carbon tetrachloride	0.005	114	5.68E-01	174	0.011	1.89	0.3	0.13	1.5	1.25	1.2E+00
Vinyl chloride	0.002	114	2.27E-01	18.6	0.011	0.20	0.3	0.13	1.5	1.11	1.1E-01

Equation 11 - Derivation of Dilution Factor (Soil Screening Guidance: User's Guide, July 1996)

$$\text{DAF} = 1 + (K * i * d) / (I * L)$$

K (m/yr)	i (m/m)	d (m)	I (m/yr)	L (m)	DAF (unitless)
4100	0.036	4.80	0.14	45	114

Equation 12 - Estimation of Mixing Zone Depth (Soil Screening Guidance: User's Guide, July 1996)

$$d = (0.0112 * L^2)^{0.5} + d_a * [1 - \exp(-L * I) / (K * i * d_a)]$$

d _a (m)	L (m)	I (m/yr)	K (m/yr)	i (m/m)	d (m)
7.6	45	0.14	4100	0.036	4.80

References:

Soil Screening Guidance: User's Guide (U.S. EPA 1996c)
 Supplemental Guidance for Developing Soil Screening Levels for Superfund Sites (U.S. EPA 2002)
 35 IAC 742 - TACO (IEPA 2007a)

Notes:

d_a = aquifer thickness (m), value of 7.6 m (25 ft) used to approximate overall alluvial aquifer thickness.
 L = source length parallel to groundwater flow (m), default value of 45 m is used and is based on a square area of 0.5 acres
 I = Infiltration rate (m/yr), default value of 0.14 m/yr used - representative of Glacial Till Over Outwash - Table 6 (U.S. EPA 1996c)
 K = hydraulic conductivity (m/yr); geometric mean of K values from slug tests performed in alluvial aquifer - see Table I-2 for data and calculation
 i = hydraulic gradient (m/m); average of gradients shown on Figure 3-10.
 d = mixing zone depth (m); calculated by Equation 12.
 DAF = dilution attenuation factor; calculated by Equation 11.
 C_w = target soil leachate concentration (DAF * GW-objective) (mg/L)
 GW-objectives used are U.S. EPA's Maximum Contaminant Levels
 GW-objective for 1,1-DCA is from TACO, Appendix B, Table F: Values Used to Calculate the Tier I Soil Remediation Objectives for the Soil Component of the Groundwater Ingestion Route
 K_d = soil-water partitioning coefficient (K_{oc} * adjusted-foc) (L/kg)
 K_{oc} = soil organic carbon/water partition coefficient (L/kg), chemical specific, TACO Appendix C, Table E.
 foc = fraction organic carbon, site-specific; see Table I-3
 adjusted foc = see Table I-3 for data and calculation of adjusted foc.
 θ_w = water-filled porosity (L_{water} / L_{soil}), default value = 0.3
 θ_a = air-filled porosity (n - θ_w) (L_{air} / L_{soil}); default value = 0.13
 n = 1 - (φ_b / φ_s) = 0.43
 φ_b = dry soil bulk density (kg/L), default value = 1.5
 φ_s = soil particle density (kg/L), default value = 2.65
 H' = dimensionless Henry's law constant, chemical specific; TACO Appendix C, Table E

Table I-2
Supporting Data for SSLs - Alluvial Aquifer Hydraulic Conductivity Data
Ellsworth Industrial Park Site
Downers Grove, Illinois

Location ID	Well Screen Location Lithology	Groundwater Classification	Hydraulic Conductivity - Falling Test (cm/s)	Hydraulic Conductivity - Rising Test (cm/s)	Mean Hydraulic Conductivity (cm/s)
Study Area B					
EIP-MW188I	Sand/gravel	Alluvial Aquifer	NA	7.69E-02	7.7E-02
EIP-MW192I	Sand/gravel	Alluvial Aquifer	4.99E-03	1.25E-03	3.12E-03
EIP-MW193I	Silty clay/clayey silt and sand/gravel	Alluvial Aquifer	0.1135 ¹	4.74E-03	4.74E-03
Study Area C					
EIP-BD5I	Silt and sand/gravel	Alluvial Aquifer	5.36E-04	9.04E-04	7.20E-04
EIP-MW272I	Sand/gravel	Alluvial Aquifer	9.30E-03	3.04E-02	1.98E-02
EIP-MW273I	Sand/gravel	Alluvial Aquifer	7.37E-02	0.2312	1.52E-01
EIP-MW194I	Sand/gravel and silty clay/clayey silt	Alluvial Aquifer	4.40E-04	1.25E-03	8.46E-04
EIP-MW195I	Sand/gravel and silty clay/clayey silt	Alluvial Aquifer	9.77E-03	2.14E-02	1.56E-02
EIP-MW196I	Sand/gravel	Alluvial Aquifer	1.85E-03	4.56E-03	3.20E-03
EIP-MW197I	Sand/gravel and silty clay/clayey silt	Alluvial Aquifer	9.67E-04	4.73E-04	7.20E-04
EIP-BD7I	Sand/gravel and silty clay/clayey silt	Alluvial Aquifer	8.14E-03	6.90E-03	7.52E-03
EIP-BD6I	Sand/gravel	Alluvial Aquifer	1.13E-03	1.23E-03	1.18E-03
Study Area G					
EIP-MW242I	Sand/gravel and silty clay/clayey silt	Alluvial Aquifer	8.64E-03	3.41E-03	6.02E-03
EIP-LD1I	Silt, sand/gravel	Alluvial Aquifer	3.54E-02	1.81E-02	2.67E-02
Study Area L					
EIP-MW257I	Sand/gravel and silty clay/clayey silt	Alluvial Aquifer	3.22E-02	1.14E-02	2.18E-02
EIP-MW259I	Sand/gravel	Alluvial Aquifer	1.72E-02	4.85E-03	1.10E-02
EIP-MW260I	Sand/gravel	Alluvial Aquifer	8.12E-02	4.36E-02	6.24E-02
Study Area Other (OU1 and OU2)					
EIP-BD4I	Silt and sand/gravel	Alluvial Aquifer	6.94E-05	7.75E-05	7.35E-05
Geometric Mean of Hydraulic Conductivity - Alluvial Aquifer:					1.3E-02

Notes:
Shaded values were not used to calculate the geometric mean of hydraulic conductivity for the SSLs. These values represent screened intervals where only a portion of the screen intersects a clean sand and gravel, or where the screen intersects interbedded fine and coarse grained lithology.

1 Difference between falling and rising head tests exceeded one order of magnitude; only rising head test results considered representative of actual soil conditions

cm/s = Centimeter per second

ID = Identification

OU = Operable Unit

NA = Not applicable; based on professional judgment, the data were not interpretable

Sources:

Bouwer, H., and R.C. Rice. 1976. "A Slug Test for Determining Hydraulic Conductivity of Unconfined Aquifers with Completely or Partially Penetrating Wells." *Water Resources Research*. Volume 12, Pages. 423 through 428.

Bouwer, H. 1989. "The Bouwer and Rice Slug Test - An Update." *Ground Water*. Volume 27, No. 3, Pages. 304 through 309.

ATTACHMENT C
BORING LOGS



LOG OF BORING BD-4I

(Page 1 of 3)

Ellsworth Industrial Park
Downers Grove

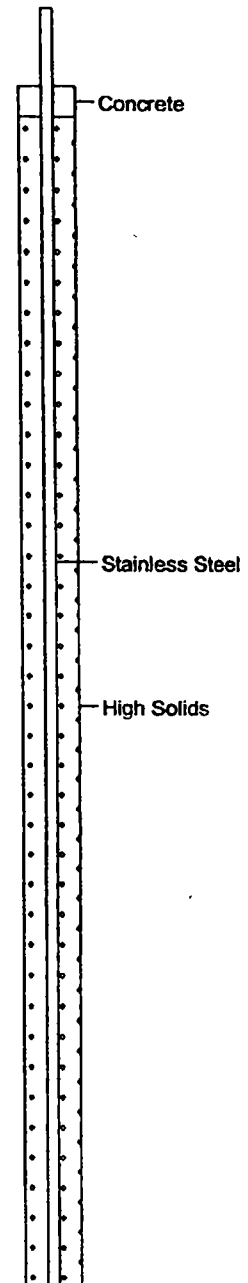
Start Date : 5/31/02
Finish Date : 5/31/02
Driller : Boart Longyear
Drilling Method : Rotasonic
Total Depth : 48 ft bgs

WESTON Geologist : B. Crawford

WWTP

Depth in feet	Samples	recovery (ft)	blow counts (in)	GRAPHIC	USCS	DESCRIPTION	PID (ppm)
0		1'			FL	FILL; organic topsoil, dry to moist, roots throughout.	0
2		1			FL	FILL; brown organic mix of sand/gravel/ clay, dry to moist.	0
4							
6		2.5			CL	CLAY; brown, moist, with gravel, medium to high plasticity.	0
8		2.5			GC	GRAVEL; with some clay, mostly dry.	0
10		2.5			GP	GRAVEL; tan, sandy, very little fines, dry.	0
12		2.5			SP	SAND; tan with gravel throughout, dry.	0
14		2.5			SP	As above	0
16		1.25			CL	CLAY; tan gravelly, dry to moist, low to medium plasticity, sandy at bottom.	0
18		1.25			GP	GRAVEL; poorly graded, brown/orange, mixed with sand, dry, loose.	0
20							

Well: BD-4I
Elev.:





LOG OF BORING BD-4I

(Page 2 of 3)

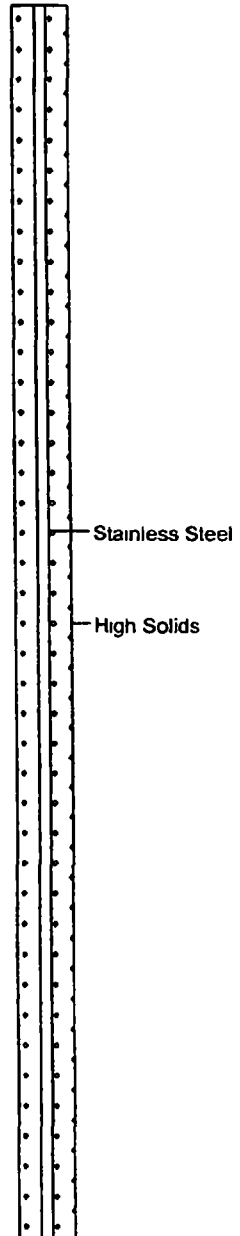
Ellsworth Industrial Park
Downers Grove

Start Date : 5/31/02
Finish Date : 5/31/02
Driller : Boart Longyear
Drilling Method : Rotasonic
Total Depth : 48 ft bgs

WESTON Geologist : B. Crawford

WWTP

Depth in feet	Samples	recovery (ft)	blow counts (in)	GRAPHIC	USCS	DESCRIPTION	PID (ppm)	Well: BD-4I Elev.:
20		1.25				GRAVEL; as above, increasing stiffness towards bottom.	0	
22						As above.		
24		1.25				As above, very stiff.	0	
26		1.25				As above, very stiff.	0	
28		1.25			GP	As above, loose.	0	
30		1.25				As above, loose.	0	
32		1.25				As above, loose.	0	
34		1.25				As above, loose.	0	
36					GC	GRAVEL; tan, mixed with clay, some sand, moist.	0	
38					GP	GRAVEL; brown/orange, mixed with sand, some cobbles, dry.	0	
40								



07-16-2002 k:\Downers Grove\TECH logs\BD-4I.BOR



LOG OF BORING BD-4I

(Page 3 of 3)

Ellsworth Industrial Park
Downers Grove

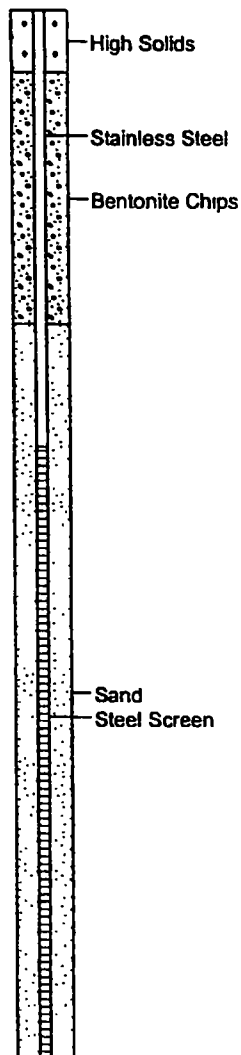
Start Date : 5/31/02
Finish Date : 5/31/02
Driller : Boart Longyear
Drilling Method : Rotasonic
Total Depth : 48 ft bgs

WESTON Geologist : B. Crawford

WWTP

Depth in feet	Samples	recovery (ft)	blow counts (in)	GRAPHIC	USCS	DESCRIPTION	PID (ppm)
40		2.5			GP	GRAVEL; as above, moist at bottom, with large cobbles.	0
42						As above.	
44		2.5			ML	SILT; grey, sandy with some cobbles, moist to wet.	0
46		2.5				As above, stiff (till).	0
48		2.5				As above.	0
50		2.5					0
52		2.5				As above.	0
54		2.5					0
56					GW	GRAVEL; Well graded, no fines or sands.	0

Well: BD-4I
Elev.:



End of boring @ 57 ft.



LOG OF BORING BD-51

(Page 1 of 3)

Ellsworth Industrial Park
Downers Grove

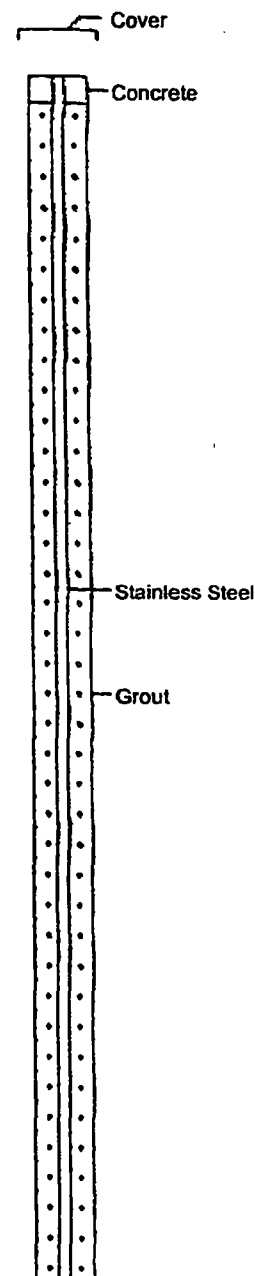
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Finish Date : 5/9/02
Driller : Rock and Soil
Drilling Method : 4 1/4 in ID HSA
Sampling Method : Split Spoon

Total Depth : 47.5 ft bgs
WESTON Geologist : B. Crawford

Arrow Gear

Depth in feet	Samples	recovery (in)	blow counts (in)	GRAPHIC	USCS	DESCRIPTION	PID (ppm)	
0		8	5,6,7,6		OL	CLAY; black, organic, rich, silty, roots throughout, dry, low plasticity.	0	
2						CLAY; as above.		
4		13	5,8,8,8		CL	CLAY; light brown, sandy, dry, stiff, low plasticity.	0	
6		15	5,5,6,8		OL	CLAY; black, organic, rich, stiff, some roots, dry, low plasticity.	0	
8					GC	GRAVEL; orange-brown, clayey, with sand, dry.		
10		14	6,6,5,8		OL	CLAY; as above.	0	
12					GC	GRAVEL; as above.		
14		9	6,6,3,8		OL	CLAY; as above.	0	
16						SAND; orange-brown, clayey with some gravel, dry to moist.		
18		14	7,8,14,11		SC	SAND; as above, with more gravel.	0	
20		10	15,15,15,15			As above.	0	
		6	10,15,12,12		GC	GRAVEL; orange-brown, rich, sandy, dry to moist.	0	
		14	11,9,6,9		SM	SAND; orange-brown, silty, with trace gravel at top, dry to moist.	0	
		17	20,11,11,15			SAND; as above.	0	

Well: BD-51
Elev.:





LOG OF BORING BD-51

(Page 2 of 3)

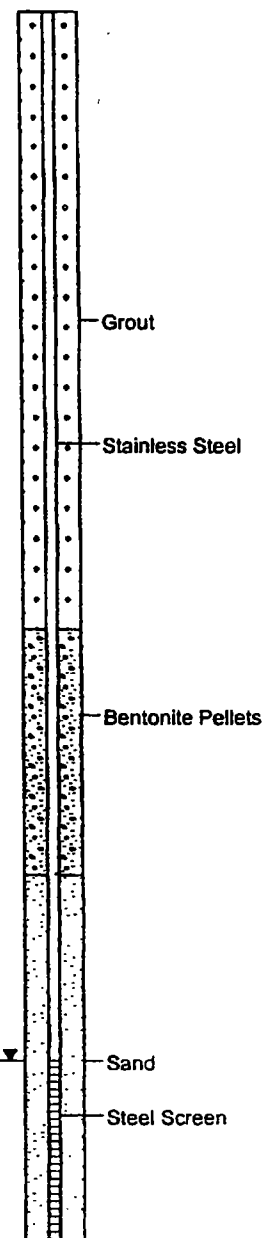
Ellsworth Industrial Park
Downers Grove

Start Date : 5/9/02
Finish Date : 5/9/02
Driller : Rock and Soil
Drilling Method : 4 1/4 in ID HSA
Sampling Method : Split Spoon

Total Depth : 47.5 ft bgs
WESTON Geologist : B. Crawford

Arrow Gear

Depth in feet	Samples	recovery (in)	blow counts (in)	GRAPHIC	USCS	DESCRIPTION	PID (ppm)	Well: BD-51 Elev.:
20					SC	SAND; orange, clayey, gravelly, dry.		
		16	14,20,20,14		CL	CLAY; grey, stiff, dry, low plasticity, trace gravel.	0	
22					SC	SAND; as above.		
		13	6,7,9,11		CL	CLAY; as above.	0	
24					CL	CLAY; grey, stiff, dry, low plasticity, some large gravel at 8 in.		
		19	17,16,15,30		SC	SAND; alternating grey to orange-brown, clayey, some gravel throughout, dry to moist.	0	
26						CLAY; grey with trace gravel at top, some silts near bottom, dry to moist, low to medium plasticity.	0	
		22	13,11,8,8			CLAY; grey with gravel, dry, low to medium plast.	0	
28					CL	As above.	0	
		6	17,20,23,20				0	
30							0	
		18	15,10,20,25				0	
32					GP	GRAVEL; poorly graded with some sands, moist.	0	
		18	43,46,42,45		SM	SAND; 1 in of orange-brown, silty, moist.	0	
34					GW	GRAVEL; angular, potentially going through rock layer.	0	
		8	55,50/3"		GP	GRAVEL; poorly graded, with sand, moist.	0	
36					SM	SAND; orange-brown, grading from silty to sandy from top to bottom, some moisture.	0	
		19	38,50,48,40		SC	SAND; clayey, black, organic, moist.	0	
38					CL	CLAY; grey, stiff, silty, dry to moist, low to medium plasticity.	0	
		13	5,10,15,20				0	
40								





LOG OF BORING BD-51

(Page 3 of 3)

Ellsworth Industrial Park
Downers Grove

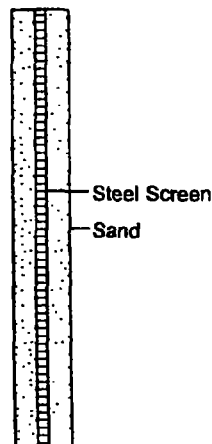
Start Date : 5/9/02
Finish Date : 5/9/02
Driller : Rock and Soil
Drilling Method : 4 1/4 in ID HSA
Sampling Method : Split Spoon

Total Depth : 47.5 ft bgs
WESTON Geologist : B. Crawford

Arrow Gear

Depth in feet	Samples	recovery (in)	blow counts (in)	GRAPHIC	USCS	DESCRIPTION	PID (ppm)
40		17	17,30,50,50/5"		CL	CLAY; grey, silty, sandy, moist, low to medium plasticity, trends to gravelly at bottom.	0
42		18	35,40,42,50		ML	SILT; grey, sandy, with gravel throughout, moist.	0
44		18	17,30,40,55		SW	SAND; grey, saturated for top 3 in.	0
46		23	38,39,66,50/3"		GP	GRAVEL; gravel/sand mixture, very little fines, saturated.	0
						GRAVEL; as above.	0

Well: BD-51
Elev.:



End of boring @ 47.5 ft.

LOG OF BORING BD-61

(Page 1 of 3)

**Ellsworth Industrial Park
Downers Grove**

Start Date	: 5/22/02
Finish Date	: 5/22/02
Dnller	: Boart Longyear
Drilling Method	: Rotasonic
Total Depth	: 50 ft bgs

WESTON Geologist : B. Schaefer

Rexnord

Depth in feet	Samples	recovery (ft)	blow counts (in)	GRAPHIC	USCS	DESCRIPTION	PID (ppm)	Well: BD-6I Elev.:
0		1.25			FL	FILL; black topsoil with roots throughout, mostly dry.	0	<div>Cover</div> <div>Concrete</div> <div>Stainless Steel</div> <div>High Solids</div>
2		1.25			ML	SILT; tan with orange, clayey, mostly dry, some trace gravels and sands.	0	
4		2.5			ML	As above.	0	
6		2.5			CL	CLAY; tan, silty to sandy, with some gravel thru, dry to moist, low to medium plasticity.	0	
8		2.5			CL	CLAY; as above, trending to more sandy at bottom.	0	
10		2.5			SC	SAND; tan with orange, clayey, some gravel, dry to moist, grading to less clayey with increasing depth.	0	
12		2.5			CL	CLAY; tan grading to grey, trace gravel, dry to moist, low ot med plast.	0	
14		2.5			GC	CLAY; grey, with sand/gravel, low plasticity.	0	
16		2.5			SC	GRAVEL; clayey with sand, dry.	0	
18		2.5			SC	SAND; orange/brown, clayey with cobbles, dry, stiff.	0	
20								

07-15-2002 k L...mens GroveMTECH logsBD-6I.BOR



LOG OF BORING BD-6I

(Page 2 of 3)

Ellsworth Industrial Park
Downers Grove

Start Date : 5/22/02
Finish Date : 5/22/02
Driller : Boart Longyear
Drilling Method : Rotasonic
Total Depth : 50 ft bgs

WESTON Geologist : B. Schaefer

Rexnord

Depth in feet	Samples	recovery (ft)	blow counts (in)	GRAPHIC	USCS	DESCRIPTION	PID (ppm)	Well: BD-6I Elev.:
20		2.5			SC	SAND; as above.	0	
22					GP	GRAVEL; poorly graded, mixed with sand and large fractured cobbles, dry. As above.	0	
24		2.5			GP		0	
26					CL	CLAY; tan, silty, with trace gravel, soft, dry to moist, low to medium plasticity.	0	
28		1.5			GP	GRAVEL; poorly graded, with sand, dry, some cobbles.	0	
28					SP	SAND; brown/orange, stiff, with gravel, dry, till.	0	
30		1.5			GP	GRAVEL; poorly graded, with sand, dry, some cobbles. As above, quite a few cobbles, cobbles appear weathered.	0	
32					GP		0	
34		1.5			GC	GRAVEL; brown with orange, clayey, with some sand, mostly dry, some cobbles.	0	
36		2.5			ML	SILT; grey to tan, clayey, fine, with gravel dry to moist.	0	
38					SC	SAND; grey with some clay, fairly well graded, some gravel, wet.	0	
40		2.5			SC		0	

Stainless Steel

High Solids



LOG OF BORING BD-6I

(Page 3 of 3)

Ellsworth Industrial Park
Downers Grove

Start Date : 5/22/02
Finish Date : 5/22/02
Driller : Boart Longyear
Drilling Method : Rotasonic
Total Depth : 50 ft bgs

WESTON Geologist : B. Schaefer

Rexnord

Depth in feet	Samples	recovery (ft)	blow counts (in)	GRAPHIC	USCS	DESCRIPTION	PID (ppm)	Well: BD-6I Elev.:
40		2.5			SC	SAND; as above.	0	<p>Stainless Steel Bentonite Chips Sand Steel Screen</p>
42					CL	CLAY; grey, stiff, with gravel (till), dry to moist, low plasticity.	0	
44		2.5				As above, grading to silty clay, small gravel seam midway through sample.	0	
46		2			GP	GRAVEL; grey, sand mixture, with some cobbles, saturated.	0	
48		2				GRAVEL; as above, more clay grading towards bottom.	0	
50	End of boring at 50 ft.							
52								
54								
56								
58								
60								



LOG OF BORING BD-71

(Page 1 of 3)

Ellsworth Industrial Park
Downers Grove

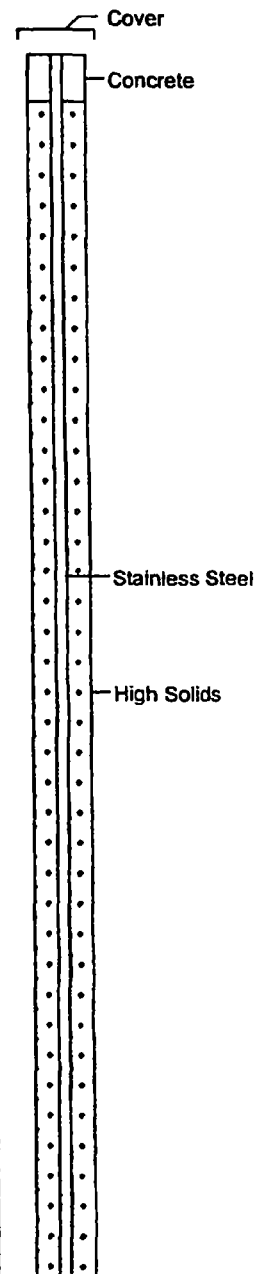
Start Date : 5/28/02
Finish Date : 5/28/02
Driller : Boart Longyear
Drilling Method : Rotasonic
Total Depth : 48 ft bgs

WESTON Geologist : B. Crawford

Precision

Depth in feet	Samples	recovery (ft)	blow counts (in)	GRAPHIC	USCS	DESCRIPTION	PID (ppm)
0		1.25'			FL	FILL; black organic clay rich fill material, soil, roots throughout, dry to moist.	0
2							
4		1.25			CL	CLAY; grey grading to orange/brown, sandy, very stiff, dry, low plasticity.	0
6							
8		2.5			SC	SAND; tan, clayey, with gravel throughout, mostly moist, medium plasticity.	0
10						SAND; as above.	0
12		2.5			CL	CLAY; tan, sandy, with some gravel throughout, mostly moist, medium plasticity.	0
14						CLAY; as above.	0
16		1			GC	GRAVEL; tan, clayey, with sand, dry to moist.	0
18						As above	0
20		1.5			CL	CLAY; tan, sandy, dry to moist, low to medium plasticity.	0

Well: BD-71
Elev.:





LOG OF BORING BD-71

(Page 2 of 3)

Ellsworth Industrial Park
Downers Grove

Start Date : 5/28/02
Finish Date : 5/28/02
Driller : Boart Longyear
Drilling Method : Rotasonic
Total Depth : 48 ft bgs

WESTON Geologist : B. Crawford

Precision

Depth in feet	Samples	recovery (ft)	blow counts (in)	GRAPHIC	USCS	DESCRIPTION	PID (ppm)	Well: BD-71 Elev.:
20		2.5				SAND; tan, clayey, with some gravel throughout, mostly dry to moist, large rock fragments at bottom.	0	
22		2			SC	SAND; tan, clayey with some gravel throughout, mostly dry to moist, large cobble at bottom.	0	
24						SAND; as above, with less clay and no cobble at bottom, and wet.	0	
26		1.5					0	High Solids
28		1.5					0	Stainless Steel
30						CLAY; grey silty, with some gravel and sand, stiff, dry to moist, low to medium plasticity.	0	
32		2.5			CL	As above	0	
34		2.5				As above with approximately 6 in of rock at bottom.	0	Bentonite Chips
36		1				CLAY; grey, gravelly, moist to wet, low to medium plasticity.	0	
38		2.5			SP	SAND; tan, gravelly, dry to moist.	0	Sand Steel Screen
40								



LOG OF BORING BD-71

(Page 3 of 3)

Ellsworth Industrial Park
Downers Grove

Start Date : 5/28/02
Finish Date : 5/28/02
Driller : Boart Longyear
Drilling Method : Rotasonic
Total Depth : 48 ft bgs

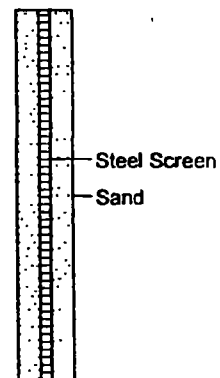
WESTON Geologist : B. Crawford

Precision

Depth in feet	Samples	recovery (ft)	blow counts (in)	GRAPHIC	USCS	DESCRIPTION	PID (ppm)
40		2.5			SP	SAND; tan, gravelly, dry to moist.	0
42					SC	SAND; tan, clayey, with some gravel, from dry to moist.	
44		2.5			ML	SILT; grey, clayey, with some gravel, dry to moist, stiff.	0.2
46		1.5			ML	SILT; grey, clayey, with some gravel, moist to wet, soft.	0
48						As above.	

End of boring @ 48 ft

Well: BD-71
Elev.:





LOG OF BORING LD-11

(Page 1 of 4)

Ellsworth Industrial Park
Downers Grove

Start Date : 04/30/02
Finish Date : 04/30/02
Driller : Rock and Soil
Drilling Method : 4 1/4 in ID HSA
Sampling Method : Split Spoon

Total Depth : 64 ft bgs
WESTON Geologist : B. Schaefer

Northwest of Lindy

Depth in feet	Samples	recovery (in)	blow counts (in)	GRAPHIC	USCS	DESCRIPTION	PID (ppm)	Well: LD-11 Elev.:
0		6	2,3,3,4			CLAY, silty clay fill, trace sand and gravel, black, low plasticity.	0.0	Concrete
2		8	6,7,9,9			CLAY, silty, trace gravel, black, some tan, firm, dry, low plasticity.	0.0	
4		9	6,7,10,10			CLAY, silt, trace gravel, tan, firm, dry, low plasticity.	0.0	
6		12	6,7,10,10		CL	CLAY, silty sand with gravel, tan, firm, dry, low plasticity.	0.0	
8		10	4,6,8,9			As above, trace cobbles.	0.0	Stainless Steel
10		9	5,6,15,5			As above, less cobbles.	0.0	Grout
12		14	5,6,14,12			GRAVEL, silty clay and sand, trace cobble, tan, loose to dense, well graded, moist.	0.0	
14		9	16,12,10,11			GRAVEL, silt and sand, tan to gray, loose, dry, well graded.	0.0	
16		21	50/5"		GW	GRAVEL, gray cobble, possibly limestone, rock fragments, dry.	0.0	
18		13	4,17,12,50			GRAVEL, silt and sand, trace white cobble, tan, slightly loose, slightly moist, well graded.	0.0	
20								



LOG OF BORING LD-11

(Page 2 of 4)

Ellsworth Industrial Park
Downers Grove

Start Date : 04/30/02
Finish Date : 04/30/02
Driller : Rock and Soil
Drilling Method : 4 1/4 in ID HSA
Sampling Method : Split Spoon

Total Depth : 64 ft bgs
WESTON Geologist : B. Schaefer

Northwest of Lindy

Depth in feet	Samples	recovery (in)	blow counts (in)	GRAPHIC	USCS	DESCRIPTION	PID (ppm)	Well: LD-11 Elev.:
20		9	7,12,12,16		GW	As above.	0.0	
22		2	7,20,15,15		GW	GRAVEL, gray-white cobble, possibly limestone, dry.	0.0	
24		19	7,20,22,22		CL	CLAY, silty clay, some gravel, hard, slightly moist, well graded.	0.0	
26		12	35,48,50/1"			As above.	0.0	
28		12	38,50/4"		GM	GRAVEL, silty sand and gravel, tan, dry, slightly loose, well graded. As above, loose.	0.0	
30		13	38,50/4"			As above.	0.0	
32		12	28,30,15,12		SM	SAND, silty sand, trace gravel, tan to gray, slightly loose, dry, fine to coarse, well graded.	0.0	
34		12	49,50/2"		CL	CLAY, silty clay, trace pebbles and thin rock layer between gray and brown clay, gray to brown, very firm, slightly moist, low plasticity.	1.8	
36						No recovery.		
38		4	50/3"		GW	GRAVEL, cobbles and fragments, gray, dry.	0.0	
40								

Stainless Steel

Grout



LOG OF BORING LD-11

(Page 3 of 4)

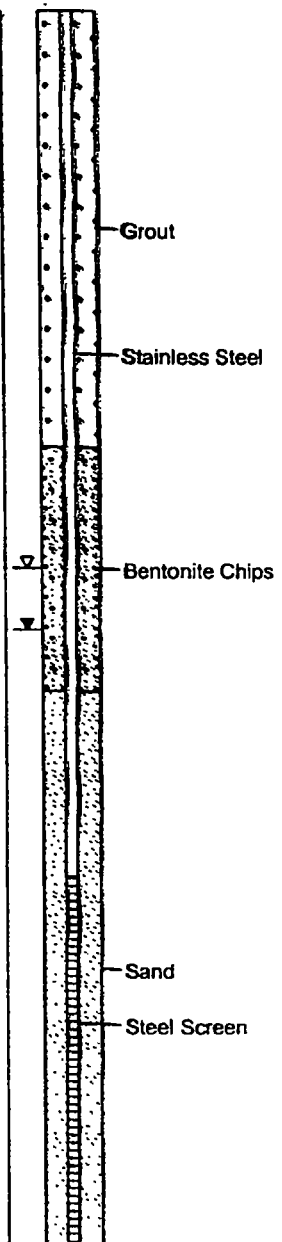
Ellsworth Industrial Park
Downers Grove

Start Date : 04/30/02
Finish Date : 04/30/02
Driller : Rock and Soil
Drilling Method : 4 1/2 in ID HSA
Sampling Method : Split Spoon

Total Depth : 64 ft bgs
WESTON Geologist : B. Schaefer

Northwest of Lindy

Depth in feet	Samples	recovery (in)	blow counts (in)	GRAPHIC	USCS	DESCRIPTION	PID (ppm)	Well: LD-11 Elev.:
40		10	47,50/3"			GRAVEL, silts and fragments, gray gravel, tan, dry, very stiff, dense.	0.0	
42		11	29,32,35,12		GM	GRAVEL, silty sand with gravel, gray gravel/cobble fragments, tan, slightly loose, dry to wet, well graded.	1.2	
44		12	15,17,24,5		CL	CLAY, sand and silt to silty clay, trace gravel at top 2 in, tan, soft to very firm, wet to very moist, low plasticity.	2.2	
46		6	29,50/3"		GW	CLAY, silty clay, some gravel, tan, soft, very moist to wet, low plasticity.	0.9	
48						GRAVEL, gray cobble fragment, possibly limestone, tan, dry.		
50						No recovery.		
52		13	27,37,50/4"		SM	SAND, silt with gray cobble at top 3 in, silty sand, trace gravel, trace red feldspar, fine to coarse sand, dry, loose, well graded.	0.0	
54		14	5,5,6,7		ML	SILT, clayey very fine sand with pebbles throughout, very soft, wet, low plasticity.	0.0	
56		6	50/3"			As above, gray cobbles at bottom.	0.0	
58						No recovery.		
60		9	27,35,33,22		GM	GRAVEL, cobbles with fine sandy silt, gray, saturated, well graded.	0.0	





LOG OF BORING LD-11

(Page 4 of 4)

Ellsworth Industrial Park
Downers Grove

Start Date : 04/30/02
Finish Date : 04/30/02
Driller : Rock and Soil
Drilling Method : 4 1/2 in ID HSA
Sampling Method : Split Spoon

Total Depth : 64 ft bgs
WESTON Geologist : B. Schaefer

Northwest of Lindy

Depth in feet	Samples	recovery (in)	blow counts (in)	GRAPHIC	USCS	DESCRIPTION	PID (ppm)
60		6	14,29,29,39			As above, slight increase in sandy silt.	0.0
62		14	49,48,16,12		GM	As above.	0.0
64						End of boring @ 64 ft.	
66							
68							
70							
72							
74							
76							
78							
80							

Well: LD-11
Elev.:



Steel Screen
Sand

LOG OF BORING EIP-SS188 I

(Page 1 of 2)

U S EPA Region V Remedial Action Contract
Work Assignment 251-RICO-B52A

Start Date 1-2-07
Finish Date 1-2-07
Driller Transhield
Drilling Method HSA
Sampling Method Grab

Total Depth 44' bgs
Location Tricon
5000-5014 Chase
WESTON Geologist T Sundquist

Ellsworth Industrial Park
Downers Grove, Du Page County, Illinois

DEPTH (ft)	RECOVERY (in)	GRAPHIC	USCS	Samples	SAMPLER	PID (ppm)	REMARKS	MW-188 I
				<div><div>Investigative Sample Collected</div><div>Investigative and Confirmation Sample Collected</div><div>Investigative with Geotech (Grain Size, CEC, ORP, TOC)</div></div>				
0			AS	ASPHALT surface cover and subbase.	<div><div></div><div></div><div></div></div>		Soil sample collected at 0859 EIP-SS188-000-1	Flushmount
			OL	ORGANIC SOIL, dark brown/black, dry, crumbly	<div><div></div><div></div><div></div></div>	0 1		Concrete
4	41/48	<div><div></div><div></div><div></div></div>	SC	CLAYEY SAND, medium brown, dry, crumbly, few pebbles	<div><div></div><div></div><div></div></div>	0 1	Soil sample collected at 0902 EIP-SS188-004-1	
					<div><div></div><div></div><div></div></div>	0 2		
8	40/48	<div><div></div><div></div><div></div></div>		SILTY CLAY, light olive/brown, soft, moist, some sand	<div><div></div><div></div><div></div></div>	0 1	Soil sample collected at 0904 EIP-SS188-008-1	
					<div><div></div><div></div><div></div></div>	0 2		
12	40/48	<div><div></div><div></div><div></div></div>	CL	as above, few pebbles. as above, pebbles absent SILTY CLAY, light olive/brown/gray, soft to medium, moist, sands, few pebbles	<div><div></div><div></div><div></div></div>	0 1	Soil sample collected at 0909 EIP-SS188-012-1	
					<div><div></div><div></div><div></div></div>	0 3		2" SS Riser
16	48/48	<div><div></div><div></div><div></div></div>		as above, medium consistency, moist, sands, few pebbles. as above, medium olive/brown, soft, pebbles absent	<div><div></div><div></div><div></div></div>	0 3	Soil sample collected at 0914 EIP-SS188-016-1	Grout
					<div><div></div><div></div><div></div></div>	0 1		
20	48/48	<div><div></div><div></div><div></div></div>	SC	CLAYEY SAND, medium brown, moist, pebbles. cobbles/pebbles.	<div><div></div><div></div><div></div></div>	0 0	Switched to 2' split spoon at 20' Soil sample collected at 0946 EIP-SS188-020-1	
	12/24			SAND, brown, well graded, coarse grained, dry, pebbles, little clay	<div><div></div><div></div><div></div></div>	0 3	Soil sample collected at 0956 EIP-SS188-022-1	
24	18/24				<div><div></div><div></div><div></div></div>	0 8	Soil sample collected at 1008 EIP-SS188-024-1	
	20/24		SW	SAND/GRAVEL, brown, coarse grained, dry, pebbles/cobbles, little clay.	<div><div></div><div></div><div></div></div>	0 2	Soil sample collected at 1026 EIP-SS188-026-1	
28	24/24			as above, wet	<div><div></div><div></div><div></div></div>	0 3	Soil sample collected at 1038 EIP-SS188-028-1	
	9/24				<div><div></div><div></div><div></div></div>	0 7	Soil sample collected at 1048 EIP-SS188-030-1	Bentonite Chips
32	14/24				<div><div></div><div></div><div></div></div>	0 7		Sand Pack 0 010" Slot Screen

LOG OF BORING EIP-SS188 I

(Page 2 of 2)

U.S. EPA Region V Remedial Action Contract
Work Assignment 251-RICO-B52A

Ellsworth Industrial Park
Downers Grove, Du Page County, Illinois

Start Date 1-2-07
Finish Date 1-2-07
Driller Transhield
Drilling Method HSA
Sampling Method Grab

Total Depth 44' bgs
Location Tricon
5000-5014 Chase
WESTON Geologist T Sundquist

DEPTH (ft)	RECOVERY (in)	GRAPHIC	USCS	Samples	SAMPLER	PID (ppm)	REMARKS	MW-188 I
				<div><div></div> Investigative Sample Collected</div> <div><div></div> Investigative and Confirmation Sample Collected</div> <div><div></div> Investigative with Geotech (Grain Size, CEC, ORP, TOC)</div>				
32			SP	SAND, brown, coarse grained, wet	<div></div>		Soil sample collected at 1108	<div><div></div></div> <div>0.010" Slot Screen</div> <div>Sand Pack</div>
18/24			GW	GRAVEL/SAND, brown, coarse grained, wet, cobbles/pebbles.	<div></div>	0.6	EIP-SS188-032-1 Soil sample collected at 1123	
				SAND, brown, coarse grained, wet	<div></div>		EIP-SS188-034-1	
36					<div></div>	0.2	Soil sample collected at 1138	
16/24					<div></div>		EIP-SS188-036-1	
15/24			SP		<div></div>	0.1	Soil sample collected at 1156	
				as above, gray, fine grained.	<div></div>		EIP-SS188-038-1	
40				as above, brown, coarse grained.	<div></div>	0.4	Soil sample collected at 1203	
18/24			CL	SILTY CLAY, gray, medium, moist, sands	<div></div>		EIP-SS188-040-1	
24/24			SP	SAND, gray, fine, moist	<div></div>	0.7	Soil sample collected at 1312	
			CL	SANDY CLAY, gray, medium, moist	<div></div>		EIP-SS188-042-1	
14/24				SILTY CLAY, gray, medium to stiff, moist, some sand	<div></div>	0.0		
44				END OF BORING AT 44'				
				Monitoring Well Developed 1/15/07				
48								
52								
56								
60								
64								



LOG OF BORING EIP-SS192 I

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U S EPA Region V Remedial Action Contract
Work Assignment 251-RICO-B52A

Ellsworth Industrial Park
Downers Grove, Du Page County, Illinois

Start Date 1-4-07
Finish Date 1-5-07
Driller Transhield
Drilling Method Geoprobe/HSA
Sampling Method Grab

Total Depth 45' bgs
Location Tricon
5000-5014 Chase
WESTON Geologist J Hunter

DEPTH (ft)	RECOVERY (m)	GRAPHIC	USCS	Samples Investigative Sample Collected Investigative and Confirmation Sample Collected Investigative with Geotech (Grain Size, CEC, ORP, TOC)	DESCRIPTION	SAMPLES	PID (ppm)	REMARKS	MW-192 I
0			AS		ASPHALT surface cover and gravel subbase, light gray, slightly moist.				Flushmount
					CLAY, brown, slightly stiff, trace sand				Concrete
5	45/60				as above, slightly moist, trace gravel		1 0	Soil sample collected at 1440 EIP-SS192-003-1	
			CL				1 0		
							1 2	Soil sample collected at 1444 EIP-SS192-008-1	
10	48/60				as above, large gravels		1 2	Soil sample collected at 1447 EIP-SS192-010-1	
					GRAVELLY CLAY, slightly moist		1 3		
			SC		CLAYEY SAND, wet, trace gravel.				
					SAND, brown, poorly graded, fine grained, wet, trace clay		1 2		2" SS Riser
15	48/60		SP		as above, clay content increasing				Grout
							1 4	Soil sample and duplicate collected at 1457 EIP-SS192-018-1 and EIP-SS192-018-2	
			CL		SANDY CLAY, gray, wet		2 0		
			SC		CLAYEY SAND, gray, wet				
20	60/60				SANDY CLAY, gray, wet		1 7	Soil sample collected at 1512 EIP-SS192-023-1	
			CL				2 3	Soil sample collected at 1530 EIP-SS192-025-1	
25	39/60				SAND, brown, well graded, medium to coarse grained, dry to slightly moist		0 9	Soil sample collected at 1530 EIP-SS192-028-1	
			SW				0 6		
30	39/60								



LOG OF BORING EIP-SS192 I

(Page 2 of 2)

U.S. EPA Region V Remedial Action Contract
Work Assignment 251-RICO-B52A

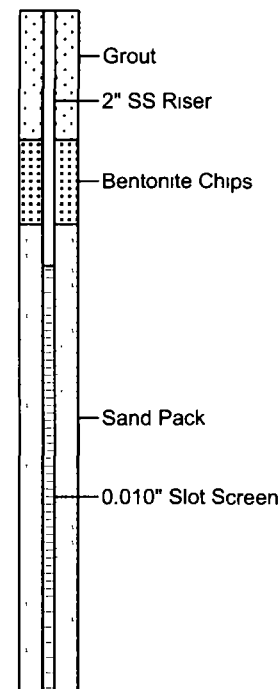
Ellsworth Industrial Park
Downers Grove, Du Page County, Illinois

Start Date 1-4-07
Finish Date 1-5-07
Driller Transhield
Drilling Method Geoprobe/HSA
Sampling Method Grab

Total Depth 45' bgs
Location Tricon
5000-5014 Chase
WESTON Geologist J Hunter

DEPTH (ft)	RECOVERY (in)	GRAPHIC	USCS	Samples	SAMPLER	PID (ppm)	REMARKS	MW-192 I	
				<div><div>Investigative Sample Collected</div><div>Investigative and Confirmation Sample Collected</div><div>Investigative with Geotech (Grain Size, CEC, ORP, TOC)</div></div>					
				DESCRIPTION					
30			SW	SAND, brown, well graded, medium to coarse grained, moist.					
			CL	SANDY CLAY, brown, slightly moist.		0.6	Soil sample collected at 1548 EIP-SS192-033-1		
			GW	GRAVEL, light gray, large, dry, sand content increasing.		0.9	Soil sample collected at 1613 EIP-SS192-035-1		
35	46/60			SAND, brown, well graded, medium grained, saturated		1.8	Soil sample collected at 1613 EIP-SS192-038-1		
			SW	as above, gray		1.6			
40	60/60					1.4	Soil sample collected at 1637 EIP-SS192-043-1		
			GW	GRAVEL, gray, well graded, saturated, trace sand.		2.0			
45	57/60			END OF BORING AT 45' Monitoring Well Developed 1/16/07					
50									
55									
60									

MW-192 I



LOG OF BORING EIP-SS193 I

(Page 1 of 2)

U S EPA Region V Remedial Action Contract
Work Assignment 251-RICO-B52A

Start Date 1-5-07
Finish Date 1-6-07
Driller Transhield
Drilling Method Geoprobe/HSA
Sampling Method Grab

Total Depth 50' bgs
Location Tricon
5000-5014 Chase
WESTON Geologist T Sundquist

Ellsworth Industrial Park
Downers Grove, Du Page County, Illinois

DEPTH (ft)	RECOVERY (in)	GRAPHIC	USCS	Samples	SAMPLER	PID (ppm)	REMARKS	MW-193 I
				DESCRIPTION				
0			AS	ASPHALT surface cover and subbase.			Soil sample and duplicate collected at 0755 EIP-SS193-000-1 and EIP-SS193-000-2	Flushmount
			OL	ORGANIC SOIL, black, very soft, moist, crumbly		0.1		Concrete
5	52/60			SANDY CLAY, brown, very soft, moist, crumbly, turning to medium consistency, few pebbles with depth. No Recovery from 5' to 5.8'. SANDY CLAY, dark brown, very soft, wet to saturated as above, brown, soft, moist, few pebbles, turning to slightly moist, medium to stiff with depth.		0.1	Soil sample collected at 0759 EIP-SS193-005-1	
			CL			0.2		
10	50/60			SANDY CLAY, brown, wet to saturated. as above, medium consistency, slightly moist, few pebbles		0.2	Soil sample and duplicate collected at 0807 EIP-SS193-010-1 and EIP-SS193-010-2	
						0.1		
15	60/60			NO RECOVERY from 15' to 17.8'		0.1		Grout
			NR			NR	Soil sample collected at 0818 EIP-SS193-018-1	2" SS Riser
			SC	CLAYEY SAND, red/brown, coarse grained, slightly moist, cobbles/pebbles intermixed.				
20	26/60		SW	SAND/GRAVEL, coarse grained, dry, little clay, cobbles/pebbles		0.3		
			NR	NO RECOVERY from 20' to 22'.				
				SAND, red/brown, coarse grained, dry, cobbles/pebbles intermixed, little clay.		NR	Soil sample collected at 0834 EIP-SS193-023-1	
25	36/60		SW	as above wet to moist		0.3		
				SILTY CLAY, gray, medium to stiff, dry, few pebbles		0.3	Soil sample collected at 0852 EIP-SS193-028-1	
30	60/60		CL			0.7		



LOG OF BORING EIP-SS193 I

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U S EPA Region V Remedial Action Contract
Work Assignment 251-RICO-B52A

Ellsworth Industrial Park
Downers Grove, Du Page County, Illinois

Start Date 1-5-07
Finish Date 1-6-07
Driller Transhield
Drilling Method Geoprobe/HSA
Sampling Method Grab

Total Depth 50' bgs
Location Tricon
5000-5014 Chase
WESTON Geologist T Sundquist

DEPTH (ft)	RECOVERY (in)	GRAPHIC	USCS	Samples	SAMPLER	PID (ppm)	REMARKS	MW-193 I	
				<div><div></div> Investigative Sample Collected</div> <div><div></div> Investigative and Confirmation Sample Collected</div> <div><div></div> Investigative with Geotech (Grain Size, CEC, ORP, TOC)</div>					DESCRIPTION
30				SILTY CLAY, gray, medium to stiff, slightly moist, few pebbles					
			CL			0.3	Soil sample collected at 0919 EIP-SS193-033-1		
35	60/60			No Recovery from 35' to 36.1'. as above, wet, cobbles. as above, moist		0.7	Soil sample collected at 0951 EIP-SS193-035-1		
						0.6			
40	47/60		SW	SAND, brown, coarse grained, dry, crumbly, pebbles. SAND/GRAVEL, gray, coarse grained, moist, cobbles at 39.4'. No Recovery from 40' to 41.5'. SAND, gray, coarse grained, moist, cobbles/pebbles 4" silty clay seam, gray, medium consistency, moist 2" gray cobbles.		0.5	Soil sample collected at 1015 EIP-SS193-040-1		
						0.8			
45	42/60		SP	SAND, gray, fine grained, moist		0.5			
			SW	SAND, gray, coarse grained, pebbles.					
			SP	SAND, light brown, medium grained, moist. as above, gray/brown.					
			CL	SILTY CLAY, gray, dry, slightly crumbly, few pebbles, trace cobbles.		0.3	Soil sample collected at 1047 EIP-SS193-048-1		
50	60/60		ML	SILT/SAND, gray/brown, dry, crumbly, some clay.		0.5			
				END OF BORING AT 50' Monitoring Well Developed 1/17/07					
55									
60									

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LOG OF BORING EIP-SS194 I

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U S. EPA Region V Remedial Action Contract
Work Assignment 251-RICO-B52A

Start Date 1-2-07
Finish Date 1-3-07
Driller Transhield
Drilling Method Geoprobe/HSA
Sampling Method Grab

Total Depth 45' bgs
Location Precision Brand
2250 Curtiss
WESTON Geologist J. Hunter

Ellsworth Industrial Park
Downers Grove, Du Page County, Illinois

DEPTH (ft)	RECOVERY (in)	GRAPHIC	USCS	DESCRIPTION	SAMPLES	PID (ppm)	REMARKS	MW-194 I
0			TS	TOPSOIL, black, slightly moist.			Soil sample collected at 0845 EIP-SS194-000-1	Stick-up
			GW	GRAVEL, light gray, well graded, dry				Concrete
				CLAY, black, stiff, dry		1 1		
				as above, brown, trace roots				
				as above, dark brown, slightly moist, cohesive, trace sand/gravel				
5	45/60		CL	SANDY CLAY, brown to dark brown, slightly moist, cohesive, sand content increases at intervals throughout.		0 0		
						0 2	Soil sample collected at 0855 EIP-SS194-008-1	
10	57/60			as above, brown, large gravel piece embedded		0 3		
						0 2	Soil sample collected at 0905 EIP-SS194-013-1	
			SC	CLAYEY SAND, light brown, moist.				
15	34/60		CL	SANDY CLAY, brown, slightly moist, trace gravel		0 7	Soil sample collected at 0910 EIP-SS194-015-1	
			SC	CLAYEY SAND with gravel, brown, wet		2 8		Grout
			SP	SAND, gray, poorly graded, fine grained, wet, gradually transitioning to gravelly clay				2" SS Riser
20	54/60		CL	GRAVELLY CLAY, gray, moist, trace round pebbles		0 0	Soil sample collected at 0920 EIP-SS194-020-1	
						1 2		
25	58/60		SW	SAND, brown to tan, well graded, moist to wet as above, dry, some clayey seams		0 7	Soil sample collected at 1003 EIP-SS194-025-1	
			SP	SAND, brown, poorly graded, medium grained, moist		0 0		
			CL	CLAY, gray, slightly moist				
30	57/60		GW	GRAVEL, light gray, well graded, angular, moist to slightly wet, trace sand.		0 0		

LOG OF BORING EIP-SS194 I

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U.S. EPA Region V Remedial Action Contract
Work Assignment 251-RICO-B52A

Ellsworth Industrial Park
Downers Grove, Du Page County, Illinois

Start Date 1-2-07
Finish Date 1-3-07
Driller Transshield
Drilling Method Geoprobe/HSA
Sampling Method Grab

Total Depth 45' bgs
Location Precision Brand
2250 Curtiss
WESTON Geologist J Hunter

DEPTH (ft)	RECOVERY (in)	GRAPHIC	USCS	Samples	SAMPLER	PID (ppm)	REMARKS	MW-194 I	
				<div><div><div><div></div></div></div><div><div></div></div><div><div></div></div></div> Investigative Sample Collected Investigative and Confirmation Sample Collected Investigative with Geotech (Grain Size, CEC, ORP, TOC)					
				DESCRIPTION					
30				GRAVEL, light gray, well graded, angular, dry, trace sand, transitioning to brown, slightly moist, trace clay with depth					
			GW	3" poorly graded gravel seam, brown, saturated		0.0	Soil sample collected at 1027 EIP-SS194-033-1	Grout	
35	56/60		SP	SAND, light brown, poorly graded, medium grained.		0.0	Soil sample collected at 1054 EIP-SS194-035-1	Bentonite Chips	
			SW	SAND with gravel, well graded, wet		0.0		2" SS Riser	
			CL	SILTY CLAY, gray, slightly moist.		0.0		Sand Pack	
40			SP	SAND, gray, poorly graded, wet, some coarse grains. as above, saturated		0.0	Soil sample collected at 1135 EIP-SS194-040-1	0.010" Slot Screen	
			GP	GRAVEL, light gray, poorly graded, saturated.		0.0			
			CL	CLAY, gray, slightly moist, slightly plastic, trace round pebbles, moisture and plasticity decreasing with depth.		0.0			
45				END OF BORING AT 45' Monitoring Well Developed 1/17/07					
50									
55									
60									

LOG OF BORING EIP-SS195 I

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U S EPA Region V Remedial Action Contract
Work Assignment 251-RICO-B52A

Ellsworth Industrial Park
Downers Grove, Du Page County, Illinois

Start Date 1-2-07
Finish Date 1-3-07
Driller Transhield
Drilling Method Geoprobe/HSA
Sampling Method Grab

Total Depth 45' bgs
Location Precision Brand
2250 Curtiss
WESTON Geologist J Hunter

DEPTH (ft)	RECOVERY (in)	GRAPHIC	USCS	Samples	DESCRIPTION	SAMPLES	PID (ppm)	REMARKS	MW-195 I
				<div>Investigative Sample Collected</div> <div>Investigative and Confirmation Sample Collected</div> <div>Investigative with Geotech (Grain Size, CEC, ORP, TOC)</div>					
0			TS		TOPSOIL, black, slightly moist				Stick-up
					CLAY, black, dry, trace roots.				Concrete
					CLAY, brown, dry to slightly moist, trace sand, trace angular gravel.		0 0	Soil sample and duplicate collected at 1307 EIP-SS195-003-1 and EIP-SS195-003-2	
					CLAYEY SAND wth gravel, brown, slightly moist		0 0		
5	46/60				as above, brown to light brown, dry		0 0		
			CL				0 0	Soil sample collected at 1311 EIP-SS195-008-1	
10	34/60						0 0	Soil sample collected at 1315 EIP-SS195-010-1	
							0 3		
15	32/60				GRAVELLY CLAY, dark brown/reddish		0 2		
					as above, very moist, gravel content increasing				Grout
					CLAY, gray, slightly moist.		0 0	Soil sample collected at 1324 EIP-SS195-018-1	2" SS Riser
20	51/60		GW		CLAYEY GRAVEL, brown, well graded, moist		0 0		
					SAND, brown, well graded, dry.		0 0	Soil sample collected at 1332 EIP-SS195-023-1	
25	40/60		SW				0 0		
			CL		SANDY CLAY, gray/brown, very moist.		0 0	Soil sample collected at 1348 EIP-SS195-028-1	
					CLAYEY GRAVEL, light brown to gray, dry.		0 0		
			GW		as above, moisture and sand content increasing.				
30	58/60		CL		CLAY, gray.		0 4		

LOG OF BORING EIP-SS195 I

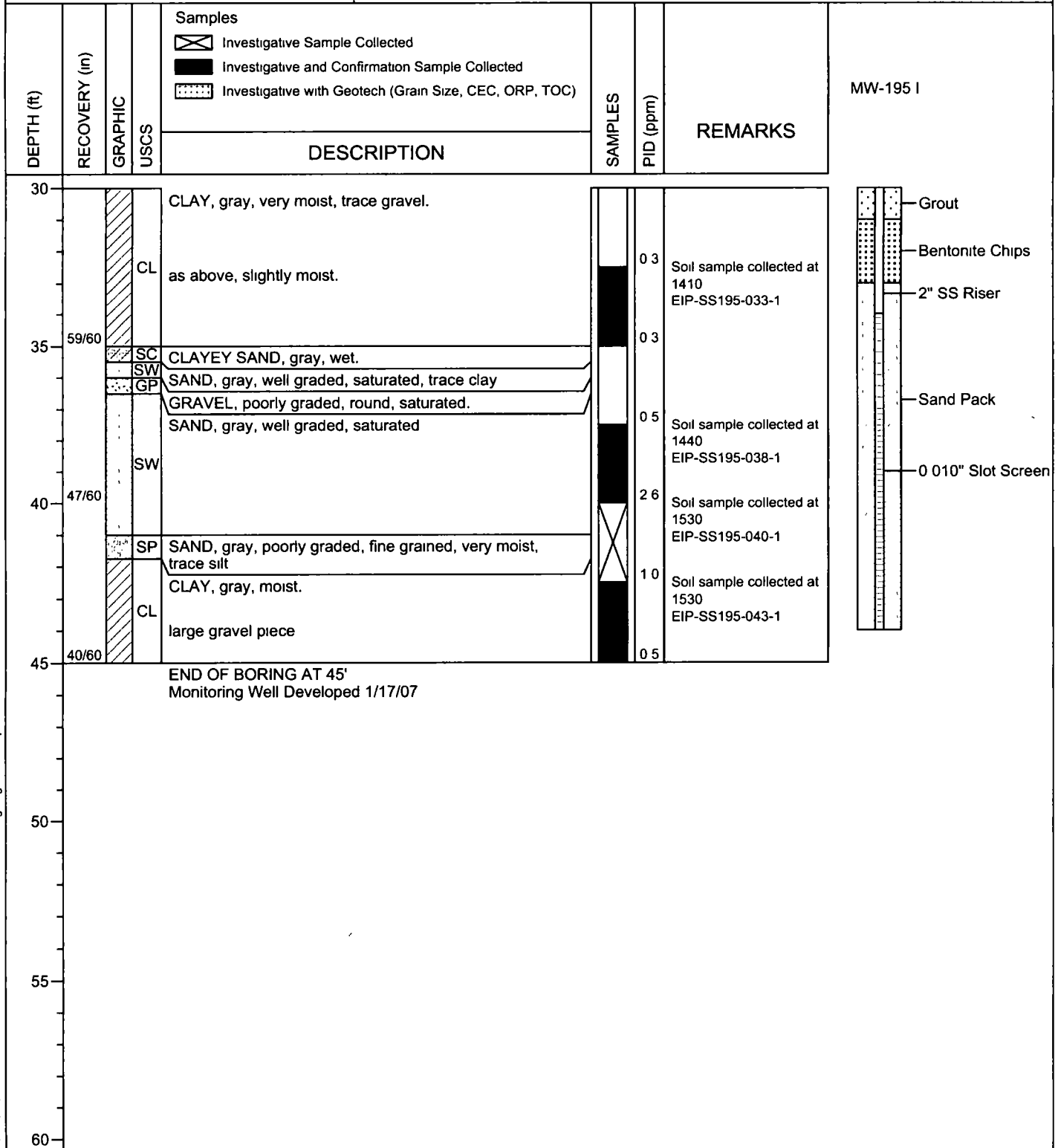
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U.S. EPA Region V Remedial Action Contract
Work Assignment 251-RICO-B52A

Start Date 1-2-07
Finish Date 1-3-07
Driller Transshield
Drilling Method Geoprobe/HSA
Sampling Method Grab

Total Depth 45' bgs
Location Precision Brand
2250 Curtiss
WESTON Geologist J Hunter

Ellsworth Industrial Park
Downers Grove, Du Page County, Illinois





LOG OF BORING EIP-SS196 I

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U S. EPA Region V Remedial Action Contract
Work Assignment 251-RICO-B52A

Ellsworth Industrial Park
Downers Grove, Du Page County, Illinois

Start Date 1-4-07
Finish Date 1-6-07
Driller Transshield
Drilling Method Geoprobe/HSA
Sampling Method Grab

Total Depth 50' bgs
Location Precision Brand
2250 Curtiss
WESTON Geologist J Hunter

DEPTH (ft)	RECOVERY (in)	GRAPHIC	USCS	DESCRIPTION	SAMPLES	PID (ppm)	REMARKS	MW-196 I
0			TS	TOPSOIL, black, slightly moist				Flushmount
			CL	CLAY, dark brown/black, slightly moist, trace sand. as above, brown, sand and gravel content increasing with depth		0 0	Soil sample collected at 0811 EIP-SS196-003-1	Concrete
46 5/60				SANDY CLAY, brown, slightly moist		0 0		
			GW	GRAVEL, light gray, well graded, dry.		0 2	Soil sample collected at 0815 EIP-SS196-008-1	
				SANDY CLAY, brown, slightly moist		0 3		
41/60				as above, brown to light brown, trace gravel.		0 0	Soil sample collected at 0825 EIP-SS196-013-1	
			CL	GRAVELLY CLAY, reddish brown, wet, gravel is angular, trace sand		0 0		Grout
38/60				as above, wet		0 0	Soil sample collected at 0832 EIP-SS196-018-1	
			SP	SAND, brown, poorly graded, fine grained, wet.		0 0	Soil sample collected at 0846 EIP-SS196-020-1	
				as above, clay content increasing		0 5		
60/60			CL	SILTY CLAY, gray, moist		0 0	No sample collected from 25' to 30'	2" SS Riser
			NR	NO RECOVERY from 25' to 30'		NR		
0/60						NR		

LOG OF BORING EIP-SS196 I

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U.S. EPA Region V Remedial Action Contract
Work Assignment 251-RICO-B52A

Ellsworth Industrial Park
Downers Grove, Du Page County, Illinois

Start Date 1-4-07
Finish Date 1-6-07
Driller Transhield
Drilling Method Geoprobe/HSA
Sampling Method Grab

Total Depth 50' bgs
Location Precision Brand
2250 Curtiss
WESTON Geologist J. Hunter

DEPTH (ft)	RECOVERY (in)	GRAPHIC	USCS	Samples	SAMPLER	PID (ppm)	REMARKS	MW-196 I
				<div><div></div> Investigative Sample Collected</div> <div><div></div> Investigative and Confirmation Sample Collected</div> <div><div></div> Investigative with Geotech (Grain Size, CEC, ORP, TOC)</div>				
				DESCRIPTION				
30				SAND, tan, poorly graded, fine to medium grained, moist				
			SP	as above, medium to coarse grained		0.0	Soil sample collected at 0853 EIP-SS196-033-1	Grout
			MH	SANDY SILT, brown, slightly moist.		0.1	Soil sample collected at 0912 EIP-SS196-035-1	2" SS Riser
35	59/60							
			CL	SILTY CLAY, gray, slightly moist, plastic, trace round gravel		0.7	Soil sample collected at 0912 EIP-SS196-038-1	Bentonite Chips
40	57/60					0.5	Soil sample collected at 0935 EIP-SS196-040-1	
				SANDY GRAVEL, gray, well graded, saturated		0.0		
45	37/60		GW			0.0		Sand Pack
						0.0	Soil sample collected at 1005 EIP-SS196-048-1	0 010" Slot Screen
50	41/60							
				END OF BORING AT 50' Monitoring Well Developed 1/16/07				
55								
60								



LOG OF BORING EIP-SS197A

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U.S. EPA Region V Remedial Action Contract
Work Assignment 251-RICO-B52A

Ellsworth Industrial Park
Downers Grove, Du Page County, Illinois

Start Date 1-4-07
Finish Date 1-4-07
Driller Transhield
Drilling Method Geoprobe
Sampling Method Grab

Total Depth 34' bgs
Location Precision Brand
2250 Curtiss
WESTON Geologist J Hunter

DEPTH (ft)	RECOVERY (in)	GRAPHIC	USCS	Samples	SAMPLES	PID (ppm)	REMARKS
				<div><div><div><div></div></div></div><div>Investigative Sample Collected</div><div><div></div></div><div>Investigative and Confirmation Sample Collected</div><div><div></div></div><div>Investigative with Geotech (Grain Size, CEC, ORP, TOC)</div></div>			
				DESCRIPTION			
0			AS	ASPHALT surface cover and subbase.	<div><div></div></div>		Soil sample collected at 1105 EIP-SS197A-000-1
				SILTY CLAY, gray-brown, slightly moist, crumbly, trace sand, trace gravel	<div><div></div></div>	1.3	
				as above, dark gray, medium consistency	<div><div></div></div>		
				as above, transitioning to light gray with dark staining	<div><div></div></div>		
				as above, transitioning to gray with brown staining, sand content increasing with depth	<div><div></div></div>		
5	60/60			as above, medium plasticity, moisture content increasing with depth	<div><div></div></div>	1.0	
					<div><div></div></div>	0.8	Soil sample collected at 1109 EIP-SS197A-008-1
10	60/60			as above, high plasticity, silt content decreasing.	<div><div></div></div>	0.8	Soil sample collected at 1116 EIP-SS197A-010-1
			CL		<div><div></div></div>	1.4	
15	59/60			CLAY, gray, occasional brown spots, soft, moist, high plasticity	<div><div></div></div>	1.0	
				SANDY CLAY, gray-brown, little gravel/cobbles	<div><div></div></div>	1.7	Soil sample collected at 1128 EIP-SS197A-018-1
				as above, brown, red staining, coarse grained, some silt, some gravel/cobbles.	<div><div></div></div>		
20	50/60			SANDY CLAY with gravel, very wet	<div><div></div></div>	1.7	
				as above, sand content increasing	<div><div></div></div>	1.5	Soil sample collected at 1145 EIP-SS197A-023-1
				3" large cobbles	<div><div></div></div>		
25	51/60		SP	SAND, brown, poorly graded, fine to medium grained, soft, very wet.	<div><div></div></div>	1.7	
				SAND, brown, well graded, saturated, little gravel, trace clay, clay content increasing with increasing depth.	<div><div></div></div>		
			SW		<div><div></div></div>	0.1	Soil sample and duplicate collected at 1200 EIP-SS197A-028-1 and EIP-SS197A-028-2
30	60/60				<div><div></div></div>	0.5	



LOG OF BORING EIP-SS197A




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U.S. EPA Region V Remedial Action Contract
Work Assignment 251-RICO-B52A

Ellsworth Industrial Park
Downers Grove, Du Page County, Illinois

Start Date 1-4-07
Finish Date 1-4-07
Driller Transhield
Drilling Method Geoprobe
Sampling Method Grab

Total Depth 34' bgs
Location Precision Brand
2250 Curtiss
WESTON Geologist J. Hunter

DEPTH (ft)	RECOVERY (in)	GRAPHIC	USCS	Samples	SAMPLES	PID (ppm)	REMARKS
				DESCRIPTION			
30	48/48		SW	SAND, brown, well graded, saturated, some gravel, little clay.		11 50	Soil sample collected at 1200 EIP-SS197A-030-1
			CL	CLAY pocket.			Soil sample collected at 1227 EIP-SS197A-033-1
			GW	SANDY GRAVEL, saturated. large cobble.			
END OF BORING AT 34'							
35							
40							
45							
50							
55							
60							

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LOG OF BORING EIP-SS197B I

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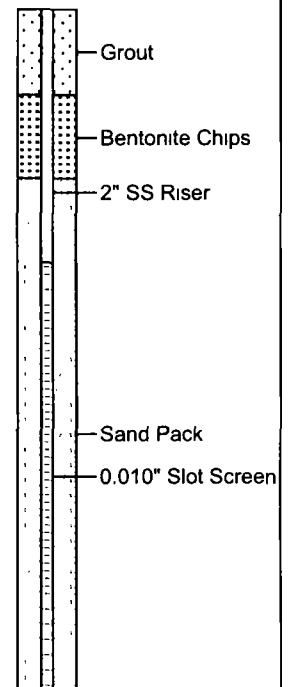
U.S. EPA Region V Remedial Action Contract
Work Assignment 251-RICO-B52A

Ellsworth Industrial Park
Downers Grove, Du Page County, Illinois

Start Date 1-5-07
Finish Date 1-5-07
Driller Transhield
Drilling Method Geoprobe/HSA
Sampling Method Grab

Total Depth 45' bgs
Location Precision Brand
2250 Curtiss
WESTON Geologist J Hunter

DEPTH (ft)	RECOVERY (in)	GRAPHIC	USCS	Samples	DESCRIPTION	SAMPLES	PID (ppm)	REMARKS	MW-197 I
				<div>Investigative Sample Collected</div> <div>Investigative and Confirmation Sample Collected</div> <div>Investigative with Geotech (Grain Size, CEC, ORP, TOC)</div>					
30					BLIND DRILL from 0' to 35'.				
35					SAND, brown, poorly graded, angular, moist to wet. 2" well graded sand seam, coarse grained.				
40	29/60		SP		2" well graded sand seam, coarse grained. as above, coarse grained, saturated.	10 23		Soil sample and duplicate collected at 1313 EIP-SS197B-038-1 and EIP-SS197B-038-2	
45	60/60		SC		CLAYEY SAND, gray, saturated.	08		Soil sample collected at 1354 EIP-SS97B-043-1	
			SP		SAND, gray, poorly graded, saturated.				
			CL		SILTY CLAY, gray, moist, trace round pebbles	11			
					END OF BORING AT 45' Monitoring Well Developed 1/17/07				
50									
55									
60									





LOG OF BORING EIP-SS242 I

(Page 2 of 2)

U.S. EPA Region V Remedial Action Contract
Work Assignment 251-RICO-B52A

Ellsworth Industrial Park
Downers Grove, Du Page County, Illinois

Start Date 1-18-07
Finish Date 1-18-07
Driller Transhield
Drilling Method Geoprobe
Sampling Method Grab

Total Depth 55' bgs
Location Fusibond
2615 Curtiss
WESTON Geologist J Hunter

DEPTH (ft)	RECOVERY (in)	GRAPHIC	USCS	Samples	SAMPLER	PID (ppm)	REMARKS	MW-242 I
				<div><div><div><div></div></div></div><div><div></div></div><div><div></div></div></div> Investigative Sample Collected Investigative and Confirmation Sample Collected Investigative with Geotech (Grain Size, CEC, ORP, TOC)				
				DESCRIPTION				
30				CLAY, gray, medium consistency, slightly moist, plastic, trace round pebbles.				
35	60/60		CL	GRAVELLY CLAY, brown, moist CLAY, gray, medium consistency, slightly moist, plastic, trace round pebbles.		0.0	Soil sample collected at 0906 EIP-SS242-033-1	
						0.0	Soil sample collected at 0946 EIP-SS242-035-1	
40	58/60					0.0	Soil sample collected at 1020 EIP-SS242-040-1	
			SW	SAND, brown, well graded, dry.		0.0		
			CL	CLAY, gray, medium consistency, slightly moist, plastic, trace round pebbles		0.0		
45	59/60			NO RECOVERY from 45' to 50'		0.0	No sample collected from 45' to 50'	
			NR			NR		
50	0/60					NR	Geotech collected from 50' to 55'	
			SP	SAND, tan, poorly graded, medium grained, very moist to moist.				
			CL	SILTY CLAY, gray, moist, trace very fine grained sand			Soil sample collected at 1202 EIP-SS242-053-1	
55	58/60		SP	SAND, gray, poorly graded, very fine grained, wet				
END OF BORING AT 55' Monitoring Well Developed 1/25/07								
60								

Grout
2" SS Riser
Bentonite Chips
Sand Pack
0.010" Slot Screen



LOG OF BORING EIP-SS257 I

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U.S. EPA Region V Remedial Action Contract
Work Assignment 251-RICO-B52A

Ellsworth Industrial Park
Downers Grove, Du Page County, Illinois

Start Date 1-24-07
Finish Date 1-25-07
Driller Transhield
Drilling Method Geoprobe
Sampling Method Grab

Total Depth 45' bgs
Location Global Gear
2500 Curtiss
WESTON Geologist T Sundquist

DEPTH (ft)	RECOVERY (in)	GRAPHIC	USCS	Samples	DESCRIPTION	SAMPLES	PID (ppm)	REMARKS	MW-257 I
				Investigative Sample Collected Investigative and Confirmation Sample Collected Investigative with Geotech (Grain Size, CEC, ORP, TOC)					
0			AS		ASPHALT surface cover and subbase			Soil sample collected at 1134 EIP-SS257-000-1	Flushmount
			SC		CLAYEY SAND, brown/red, coarse grained, soft, slightly moist, crumbly, gravel		0.2		Concrete
			CL		SILTY CLAY, medium brown, medium consistency, slightly moist				
5	60/60				CLAYEY SAND/GRAVEL, red/brown, coarse grained, soft, slightly moist, crumbly, cobbles No Recovery from 5' to 6.2'		0.0	Soil sample collected at 1139 EIP-SS257-005-1	
							0.0		
10	46/60				No Recovery from 10' to 11.4'		0.0	Soil sample collected at 1143 EIP-SS257-010-1 Geotech collected from 10' to 15' at 1309	
							0.0		
15	44/60				No Recovery from 15' to 17'.		0.0	Soil sample collected at 1150 EIP-SS257-015-1	Grout
			SC				0.0		2" SS Riser
20	36/60				No Recovery from 20' to 21.4'		0.0	Soil sample collected at 1202 EIP-SS257-020-1	
							0.0		
25	44/60				No Recovery from 25' to 27'		0.0	Soil sample collected at 1302 EIP-SS257-025-1	
							0.0		
					CLAYEY SAND/GRAVEL, light brown, coarse grained, dry, crumbly, cobbles		0.0		Bentonite Chips
30	36/60				as above, moist		0.0		Sand Pack

LOG OF BORING EIP-SS257 I

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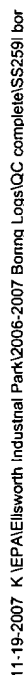
U.S. EPA Region V Remedial Action Contract
Work Assignment 251-RICO-B52A

Ellsworth Industrial Park
Downers Grove, Du Page County, Illinois

Start Date 1-24-07
Finish Date 1-25-07
Driller Transhield
Drilling Method Geoprobe
Sampling Method Grab

Total Depth 45' bgs
Location Global Gear
2500 Curtiss
WESTON Geologist T Sundquist

DEPTH (ft)	RECOVERY (in)	GRAPHIC	USCS	Samples	SAMPLES	PID (ppm)	REMARKS	MW-257 I
				<div><div><div><div></div></div></div><div><div></div></div><div><div></div></div></div> Investigative Sample Collected Investigative and Confirmation Sample Collected Investigative with Geotech (Grain Size, CEC, ORP, TOC)				
				DESCRIPTION				
30			NR	NO RECOVERY from 30' to 31.6'	<div><div></div></div>		Soil sample collected at 1313 EIP-SS257-030-1	<div><div></div><div></div></div> <div>Sand Pack</div> <div>0.010" Slot Screen</div>
			GW	SAND/GRAVEL, light brown, coarse grained, wet	<div><div></div></div>	0.2		
35	41/60			SANDY CLAY, gray, very fine grained, very soft, moist No Recovery from 35' to 35.8'	<div><div></div></div>	0.2		
				as above, trace pebbles	<div><div></div></div>	0.1		
40	50/60		CL		<div><div></div></div>	0.7	Soil sample collected at 1334 EIP-SS257-038-1	
				as above, medium consistency.	<div><div></div></div>	1.2	Soil sample collected at 1403 EIP-SS257-043-1	
45	60/60			CLAY, gray, medium consistency, slightly moist, few pebbles	<div><div></div></div>	1.6		
				END OF BORING AT 45' Monitoring Well Developed 1/30/07				
50								
55								
60								



LOG OF BORING EIP-SS259 I

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U.S. EPA Region V Remedial Action Contract
Work Assignment 251-RICO-B52A

Ellsworth Industrial Park
Downers Grove, Du Page County, Illinois

Start Date 1-25-07
Finish Date 1-25-07
Driller Transhield
Drilling Method Geoprobe
Sampling Method Grab

Total Depth 45' bgs
Location Global Gear
2500 Curtiss
WESTON Geologist M. Pihl

DEPTH (ft)	RECOVERY (in)	GRAPHIC	USCS	Samples	SAMPLER	PID (ppm)	REMARKS	MW-259 I
				<div><div></div> Investigative Sample Collected</div> <div><div></div> Investigative and Confirmation Sample Collected</div> <div><div></div> Investigative with Geotech (Grain Size, CEC, ORP, TOC)</div>				
				DESCRIPTION				
30			SM	SILTY SAND, brown, poorly graded, fine to medium grained, saturated.	<div></div>	0.0	Soil sample collected at 1117 EIP-SS259-030-1	<div><div></div></div> <div>Sand Pack</div> <div>0.010" Slot Screen</div>
			SW	SAND, brown, well graded, fine to coarse grained, very loose, saturated, abundant gravel. as above, stones (1"-1 5")	<div></div>	0.0		
35	52/60		GW	GRAVEL, brown, very loose, saturated, some coarse grained sand, large cobbles (>1 5")	<div></div>	0.3	Soil sample collected at 1138 EIP-SS259-038-1	
40	42/60		NR	NO RECOVERY from 40' to 45'.	<div></div>	0.7	No sample collected from 40' to 45'	
45	0/60			END OF BORING AT 45' Monitoring Well Developed 1/30/07				
50								
55								
60								



LOG OF BORING EIP-SS260 I


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U.S. EPA Region V Remedial Action Contract
Work Assignment 251-RICO-B52A

Ellsworth Industrial Park
Downers Grove, Du Page County, Illinois

Start Date 1-25-07
Finish Date 1-25-07
Driller Transhield
Drilling Method Geoprobe
Sampling Method Grab

Total Depth 45' bgs
Location Global Gear
2500 Curtiss
WESTON Geologist M. Doheny-Skubic

DEPTH (ft)	RECOVERY (in)	GRAPHIC	USCS	Samples	SAMPLES	PID (ppm)	REMARKS	MW-260 I
				<div><div></div> Investigative Sample Collected</div> <div><div></div> Investigative and Confirmation Sample Collected</div> <div><div></div> Investigative with Geotech (Grain Size, CEC, ORP, TOC)</div>				
				DESCRIPTION				
30			NR	NO RECOVERY from 30' to 32 5'				 <div>Sand Pack</div> <div>0.010" Slot Screen</div>
	30/60			SANDY GRAVEL, tan, well graded, subrounded to rounded, loose, wet.	<div></div>	NA	Soil sample collected at 1413 EIP-SS260-033-1	
35			GW	as above, fine to coarse grained.	<div></div>	0.4	Soil sample collected at 1438 EIP-SS260-035-1 PID battery ran out, no field screening from 35' to EOB	
					<div></div>	NA	Soil sample collected at 1438 EIP-SS260-038-1	
40	33/60				<div></div>	NA	Soil sample collected at 1508 EIP-SS260-040-1	
			CL	SILTY CLAY, gray, soft, slightly moist, trace rounded pebbles.	<div></div>	NA	Soil sample collected at 1508 EIP-SS260-043-1	
45	30/60				<div></div>	NA		
				END OF BORING AT 45' Monitoring Well Developed 1/30/07				
50								
55								
60								

LOG OF BORING EIP-SS272 I

(Page 1 of 2)

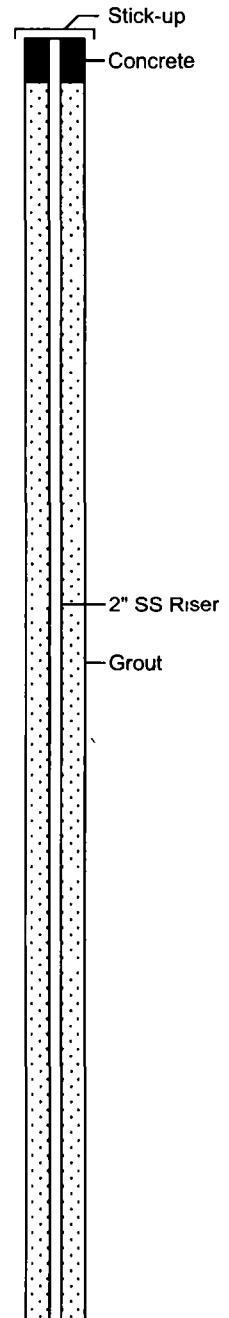
U.S. EPA Region V Remedial Action Contract
Work Assignment 251-RICO-B52A

Ellsworth Industrial Park
Downers Grove, Du Page County, Illinois

Start Date 1-30-07
Finish Date 1-31-07
Driller Transshield
Drilling Method Geoprobe
Sampling Method Grab

Total Depth 51' bgs
Location Arrow Gear
2301 Curtiss
WESTON Geologist J Hunter

DEPTH (ft)	RECOVERY (in)	GRAPHIC	USCS	Samples	DESCRIPTION	SAMPLES	PID (ppm)	REMARKS	MW-272 I
				<div> <div></div> Investigative Sample Collected <div></div> Investigative and Confirmation Sample Collected <div></div> Investigative with Geotech (Grain Size, CEC, ORP, TOC) </div>					
0			TS	TOPSOIL, brown					
			CL	SILTY CLAY, dark brown, soft, dry, trace angular gravel.					
			OL	ORGANIC SOIL, black, soft, dry, silty					
5	52/60		CL	SILTY CLAY, black, soft, dry as above, gradually transitioning to brown.				Soil sample and duplicate collected at 0805 EIP-SS272-003-1 and EIP-SS272-003-2	
			CL	SANDY CLAY, brown, slightly moist, trace small gravel as above, sand (medium grained) content is increasing.				Soil sample collected at 0810 EIP-SS27-008-1	
10	57/60		SC	CLAYEY SAND, brown, medium grained, moist, trace small gravel, clay content decreasing with depth				Shelby tube collected from 9' to 11 5'	
			SC	as above, wet.				Soil sample collected at 0819 EIP-SS272-013-1	
15	42/60		SP	SAND, brown, poorly graded, medium grained, wet					
			GW	GRAVEL, brown, well graded, wet, trace sand				Soil sample collected at 0833 EIP-SS272-018-1	
20	41/60		SC	CLAYEY SAND, brown, moist.					
			CL	SILTY CLAY, gray, medium consistency, moist, trace small gravel				Soil sample collected at 0851 EIP-SS272-020-1 Geotech collected from 20'-25' at 0931	
			SW	CLAYEY SAND, brown, well graded, wet, trace gravel.					
			GW	GRAVEL, brown, well graded, saturated					
25	57/60		SP	SAND, gray, poorly graded, moist, trace silt					
			CL	SILTY CLAY, gray, soft, moist, trace small gravel.					
			CL	SAND SEAM, gray, well graded, very moist, trace gravel.				Soil sample collected at 0912 EIP-SS272-028-1	
30	49/60		SC	CLAYEY SAND, brown, moist					



LOG OF BORING EIP-SS272 I

(Page 2 of 2)

U.S. EPA Region V Remedial Action Contract
Work Assignment 251-RICO-B52A

Ellsworth Industrial Park
Downers Grove, Du Page County, Illinois

Start Date 1-30-07
Finish Date 1-31-07
Driller Transhield
Drilling Method Geoprobe
Sampling Method Grab

Total Depth 51' bgs
Location Arrow Gear
2301 Curtiss
WESTON Geologist J Hunter

DEPTH (ft)	RECOVERY (in)	GRAPHIC	USCS	Samples	SAMPLER	PID (ppm)	REMARKS	MW-272 I
				<div><div><div><div></div></div></div><div>Investigative Sample Collected</div><div><div></div></div><div>Investigative and Confirmation Sample Collected</div><div><div></div></div><div>Investigative with Geotech (Grain Size, CEC, ORP, TOC)</div></div> <div>DESCRIPTION</div>				
30			SW	SAND, tan, well graded, medium grained, wet, trace of gravel.	<div><div></div></div>		Soil sample collected at 0942 EIP-SS272-030-1	<div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></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LOG OF BORING EIP-SS273 I

(Page 2 of 2)

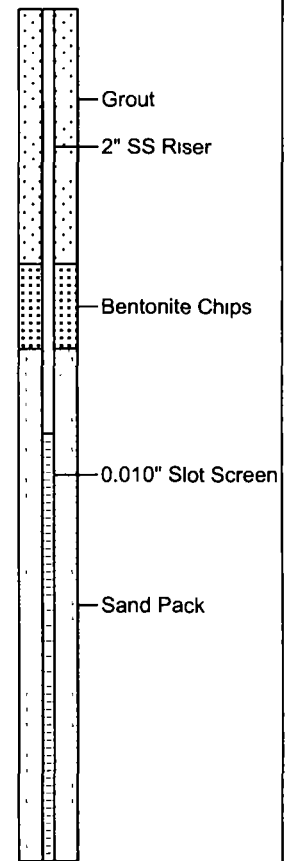
U.S. EPA Region V Remedial Action Contract
Work Assignment 251-RICO-B52A

Ellsworth Industrial Park
Downers Grove, Du Page County, Illinois

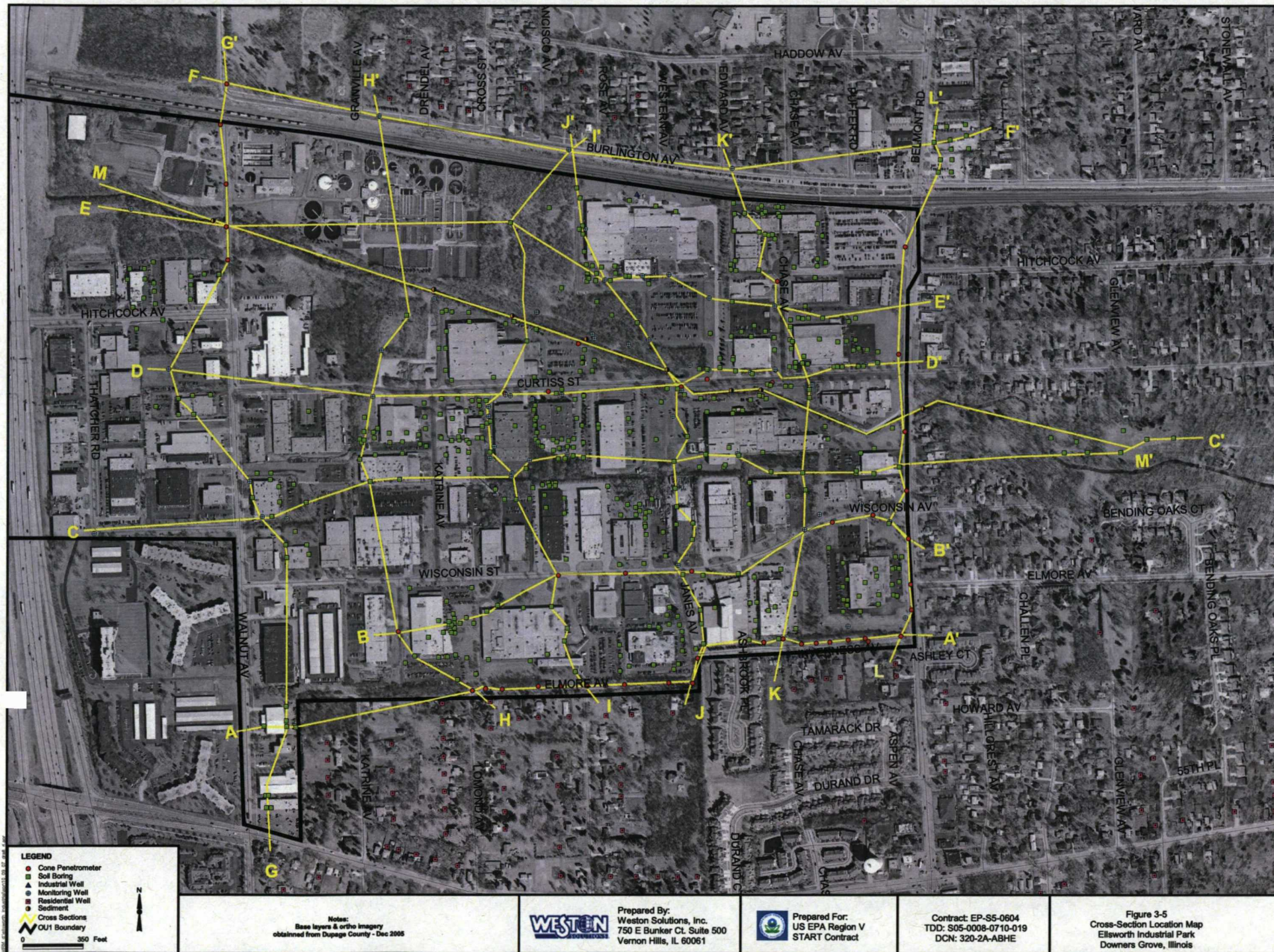
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Finish Date 1-30-07
Driller Transshield
Drilling Method Geoprobe
Sampling Method Grab

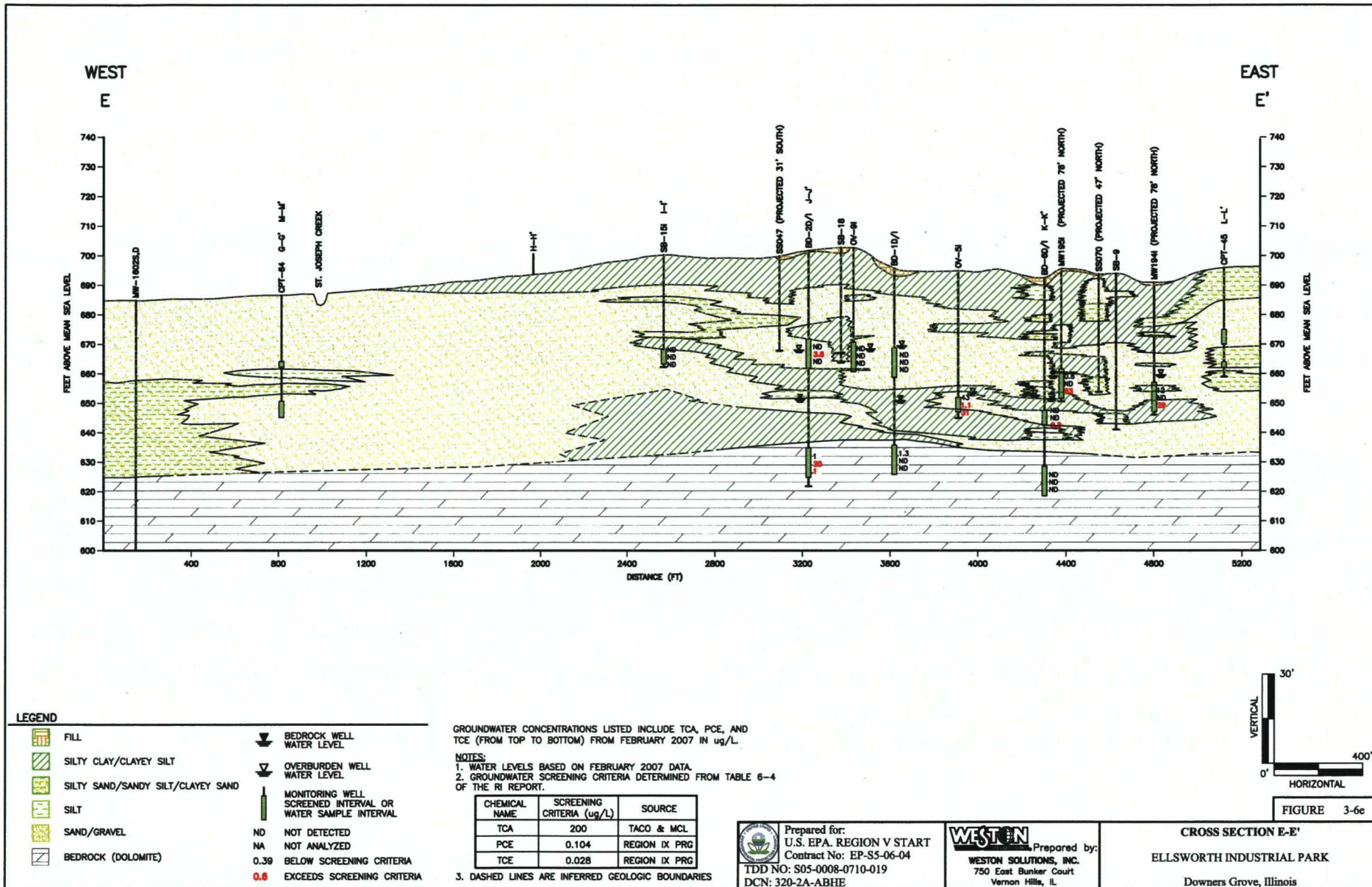
Total Depth 50' bgs
Location Arrow Gear
2301 Curtiss
WESTON Geologist J Hunter

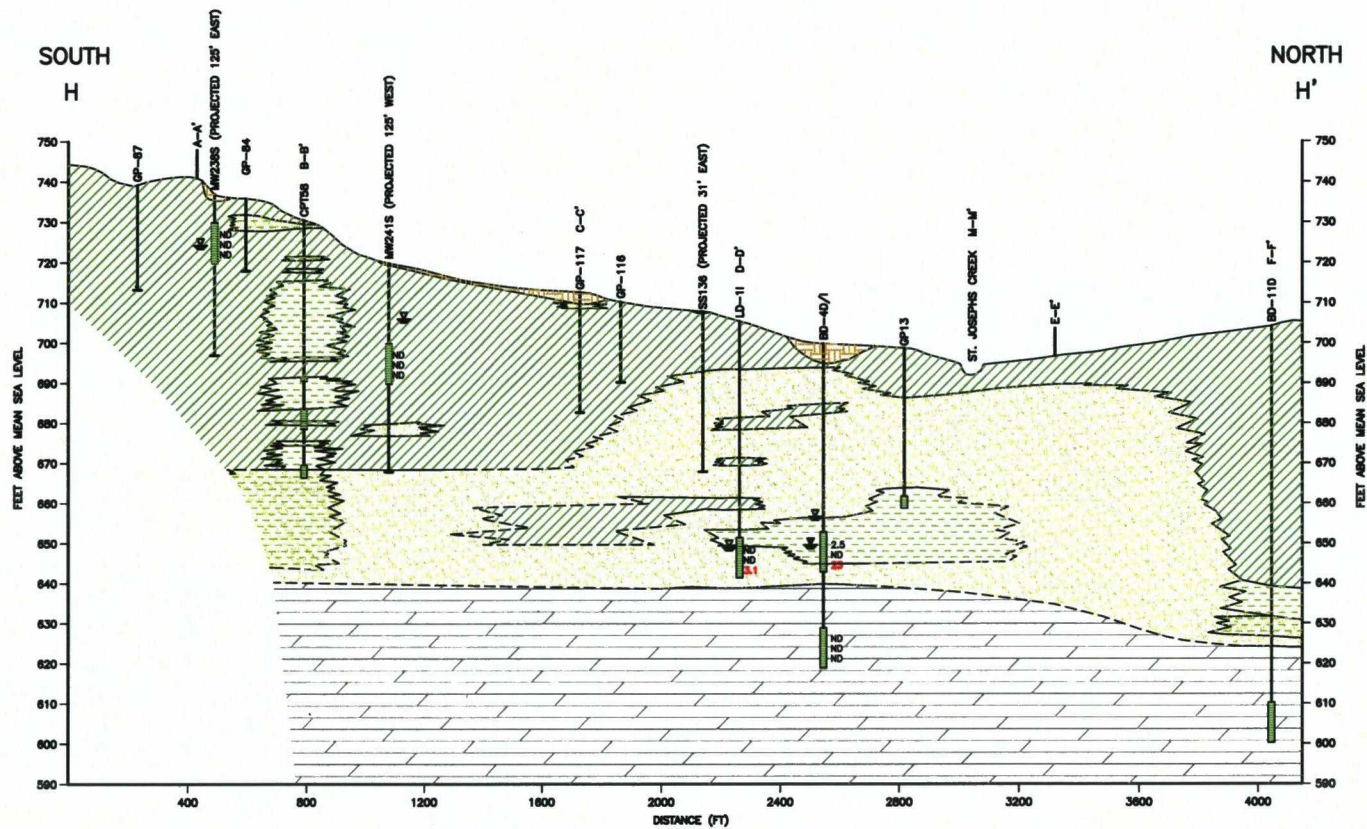
DEPTH (ft)	RECOVERY (in)	GRAPHIC	USCS	Samples	DESCRIPTION	SAMPLES	PID (ppm)	REMARKS	MW-273 I
				<div> <div></div> Investigative Sample Collected <div></div> Investigative and Confirmation Sample Collected <div></div> Investigative with Geotech (Grain Size, CEC, ORP, TOC) </div>					
30			SW		SAND, tan, well graded, dry, trace angular/large gravel.				
			SC		CLAYEY SAND, tan, slightly moist.		1.8	Soil sample collected at 1447 EIP-SS273-033-1	
35	39/60		ML		SANDY SILT, tan, fine grained, wet seams of wet, small, angular gravel throughout.		3.8	Soil sample collected at 1509 EIP-SS273-035-1	
			SP		CLAYEY SAND, gray, poorly graded, fine grained, very moist, slightly plastic.		0.1	Soil sample collected at 1538 EIP-SS273-040-1	
			GW		GRAVEL, gray, well graded, wet, trace clay.		3.7		
45	40/60		GW		GRAVEL with sand, tan, well graded, wet GRAVEL with clay, tan, well graded, wet		2.1	Soil sample collected at 1559 EIP-SS273-045-1	
			GW				0.8		
50	21/60						NA		
END OF BORING AT 50' Monitoring Well Developed 2/12/07									
55									
60									



ATTACHMENT D
GEOLOGIC CROSS SECTIONS







LEGEND

	FILL		BEDROCK WELL WATER LEVEL
	SILTY CLAY/CLAYEY SILT		OVERBURDEN WELL WATER LEVEL
	SILTY SAND/SANDY SILT/CLAYEY SAND		MONITORING WELL SCREENED INTERVAL OR WATER SAMPLE INTERVAL
	SILT	ND	NOT DETECTED
	SAND/GRAVEL	NA	NOT ANALYZED
	BEDROCK (DOLOMITE)	0.39	BELOW SCREENING CRITERIA
		0.6	EXCEEDS SCREENING CRITERIA

GROUNDWATER CONCENTRATIONS LISTED INCLUDE TCA, PCE, AND TCE (FROM TOP TO BOTTOM) FROM FEBRUARY 2007 IN $\mu\text{g/L}$.

NOTES:

1. WATER LEVELS BASED ON FEBRUARY 2007 DATA.
2. GROUNDWATER SCREENING CRITERIA DETERMINED FROM TABLE 6-4 OF THE RI REPORT.

CHEMICAL NAME	SCREENING CRITERIA ($\mu\text{g/L}$)	SOURCE
TCA	200	TACO & MCL
PCE	0.104	REGION IX PRG
TCE	0.028	REGION IX PRG

3. DASHED LINES ARE INFERRED GEOLOGIC BOUNDARIES



Prepared for:
U.S. EPA. REGION V START
Contract No: EP-S5-06-04
TDD NO: S05-0008-0710-019
DCN: 320-2A-ABHE



Prepared by:
WESTON SOLUTIONS, INC.
750 East Bunker Court
Vernon Hills, IL

CROSS SECTION H-H'
ELLSWORTH INDUSTRIAL PARK

Downers Grove, Illinois

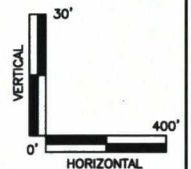
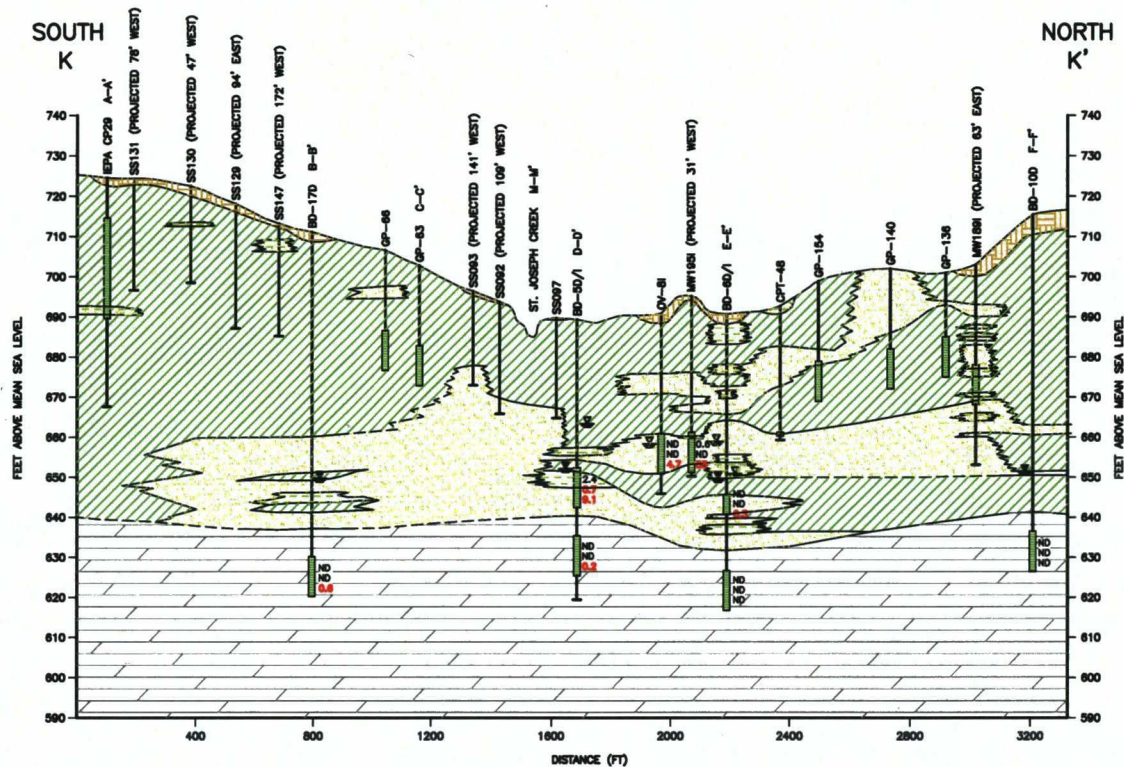


FIGURE 3-6h



LEGEND

	FILL		BEDROCK WELL WATER LEVEL
	SILTY CLAY/CLAYEY SILT		OVERBURDEN WELL WATER LEVEL
	SILTY SAND/SANDY SILT/CLAYEY SAND		MONITORING WELL SCREENED INTERVAL OR WATER SAMPLE INTERVAL
	SILT	ND	NOT DETECTED
	SAND/GRAVEL	NA	NOT ANALYZED
	BEDROCK (DOLOMITE)	0.39	BELOW SCREENING CRITERIA
		0.8	EXCEEDS SCREENING CRITERIA

GROUNDWATER CONCENTRATIONS LISTED INCLUDE TCA, PCE, AND TCE (FROM TOP TO BOTTOM) FROM FEBRUARY 2007 IN ug/L.

NOTES:
 1. WATER LEVELS BASED ON FEBRUARY 2007 DATA.
 2. GROUNDWATER SCREENING CRITERIA DETERMINED FROM TABLE 6-4 OF THE RI REPORT.

CHEMICAL NAME	SCREENING CRITERIA (ug/L)	SOURCE
TCA	200	TACO & MCL
PCE	0.104	REGION IX PRG
TCE	0.028	REGION IX PRG

3. DASHED LINES ARE INFERRED GEOLOGIC BOUNDARIES



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 ELLSWORTH INDUSTRIAL PARK
 Downers Grove, Illinois

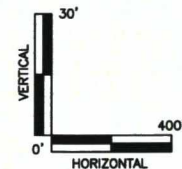


FIGURE 3-6k